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Analytical Report Number : 21-95123

Project / Site name:	Dunsbury Park	Samples received on:	25/08/2021
Your job number:	19453-GELO	Samples instructed on/ Analysis started on:	25/08/2021
Your order number:	PO09395	Analysis completed by:	02/09/2021
Report Issue Number:	1	Report issued on:	02/09/2021
Samples Analysed:	7 soil samples		

Signed:

Izabela Wójcik

Izabela Wójcik
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-95123
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number				1985519	1985520	1985521	1985522	1985523
Sample Reference				BH5.01	BH5.02	BH5.05	BH1.01	BH4.01
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05	0.05	0.20	1.00	0.50
Date Sampled				09/08/2021	10/08/2021	13/08/2021	23/08/2021	23/08/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	4.7	13	15	19
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.9	9.6	10.6	9.8	6.5
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.044	0.055	0.29	0.24	0.045
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0061	0.0033	0.0052	0.0061	0.0028

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 21-95123
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number				1985519	1985520	1985521	1985522	1985523
Sample Reference				BH5.01	BH5.02	BH5.05	BH1.01	BH4.01
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05	0.05	0.20	1.00	0.50
Date Sampled				09/08/2021	10/08/2021	13/08/2021	23/08/2021	23/08/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	11	8.3	8.1	6.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.44	0.21	0.63	0.57	0.76
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.2	0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.9	< 0.2	0.4	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	18	9.5	28	26	25
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	9.6	29	26	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.1	3.9	12	64	8.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	35	22	14	24	8.1
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	6.0	12	16	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	28	12	42	39	31
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	79	100	66	150	49

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0

Analytical Report Number: 21-95123
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number				1985519	1985520	1985521	1985522	1985523
Sample Reference				BH5.01	BH5.02	BH5.05	BH1.01	BH4.01
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05	0.05	0.20	1.00	0.50
Date Sampled				09/08/2021	10/08/2021	13/08/2021	23/08/2021	23/08/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35	mg/kg	10	MCERTS	-	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	-	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	-	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	-	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	-	< 10	< 10	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	-	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-95123
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number				1985524	1985525
Sample Reference				BH4.02	BH6.01
Sample Number				None Supplied	None Supplied
Depth (m)				0.50	0.40
Date Sampled				24/08/2021	17/08/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	15
Total mass of sample received	kg	0.001	NONE	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	11.1	7.7
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.22	0.0055
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0031	0.0070

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80
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Analytical Report Number: 21-95123
 Project / Site name: Dunsbury Park
 Your Order No: P009395

Lab Sample Number				1985524	1985525
Sample Reference				BH4.02	BH6.01
Sample Number				None Supplied	None Supplied
Depth (m)				0.50	0.40
Date Sampled				24/08/2021	17/08/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.5	6.0
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.66	0.31
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	32	21
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	22
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	5.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.3	9.2
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	5.6
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	37	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	56	27

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0

Analytical Report Number: 21-95123
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number				1985524	1985525
Sample Reference				BH4.02	BH6.01
Sample Number				None Supplied	None Supplied
Depth (m)				0.50	0.40
Date Sampled				24/08/2021	17/08/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Petroleum Hydrocarbons					
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10
TPH Total C5 - C44	mg/kg	10	NONE	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-95123

Project / Site name: Dunsbury Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1985519	BH5.01	None Supplied	0.05	Brown clay and sand with gravel and vegetation.
1985520	BH5.02	None Supplied	0.05	Brown loam and sand with gravel and vegetation.
1985521	BH5.05	None Supplied	0.2	Brown loam and sand with gravel.
1985522	BH1.01	None Supplied	1	Brown clay and loam with gravel and vegetation.
1985523	BH4.01	None Supplied	0.5	Brown clay and loam.
1985524	BH4.02	None Supplied	0.5	Brown loam and sand with gravel.
1985525	BH6.01	None Supplied	0.4	Brown clay and loam with gravel and vegetation.

Analytical Report Number : 21-95123
Project / Site name: Dunsbury Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L0738-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS

Analytical Report Number : 21-95123
Project / Site name: Dunsbury Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

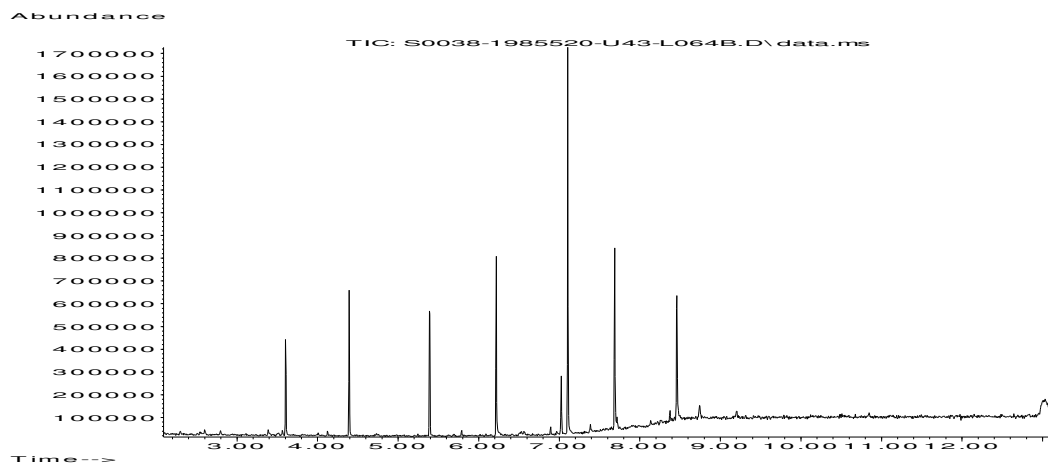
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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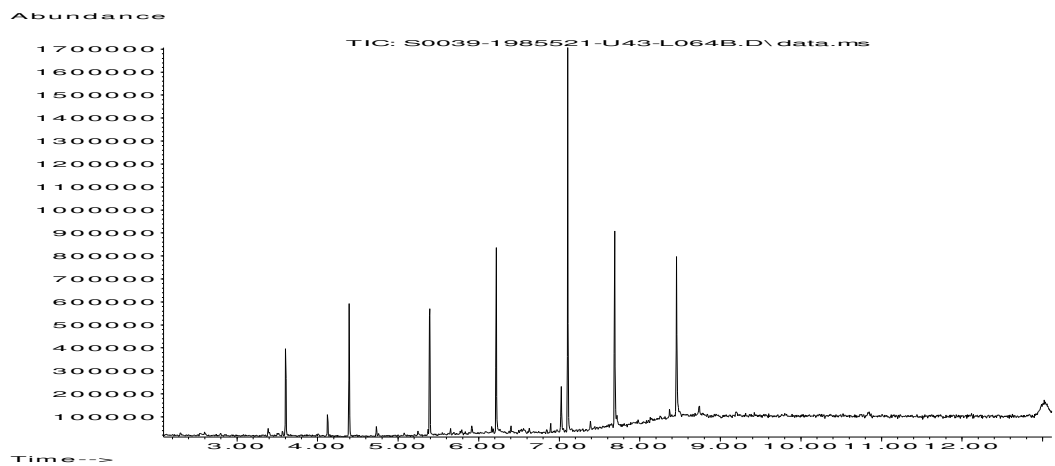
For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

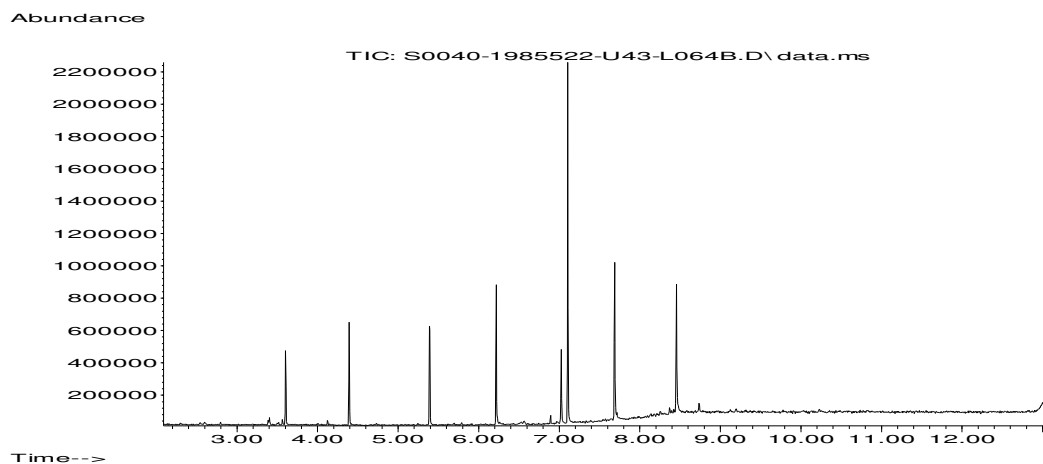
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

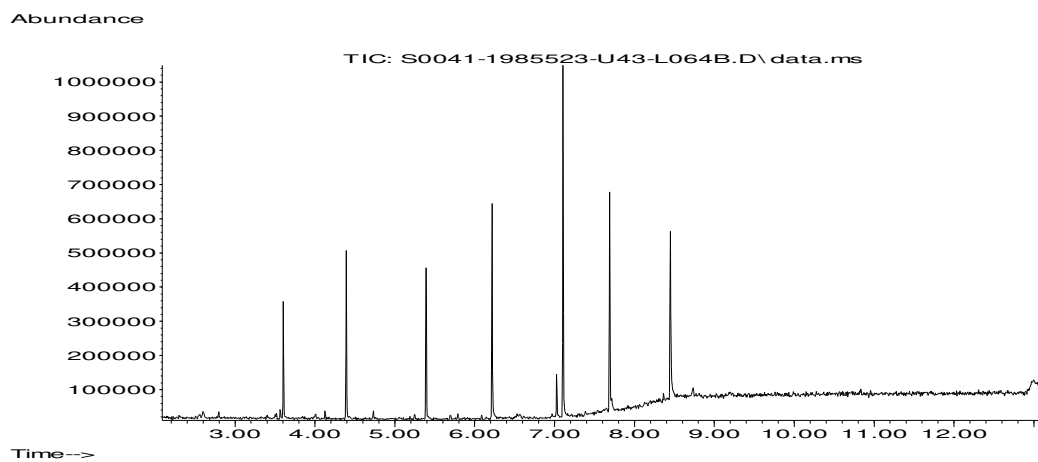
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

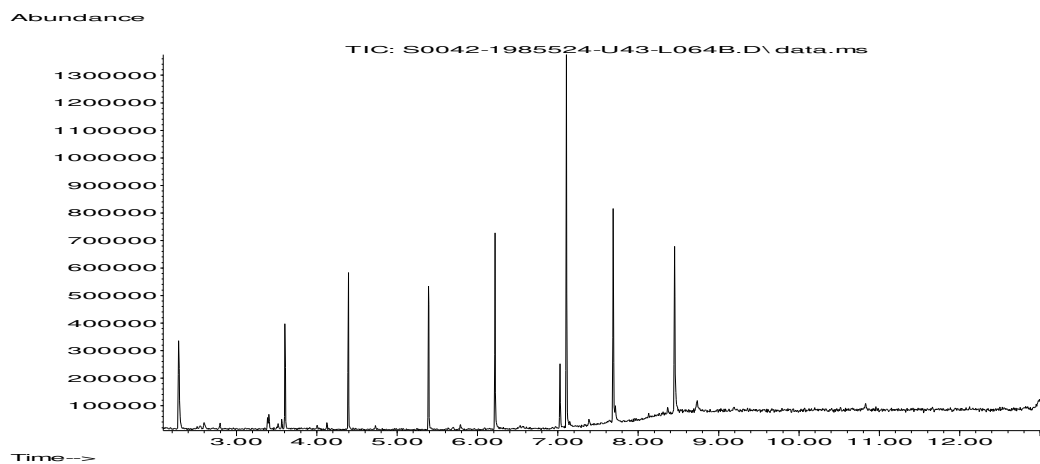
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

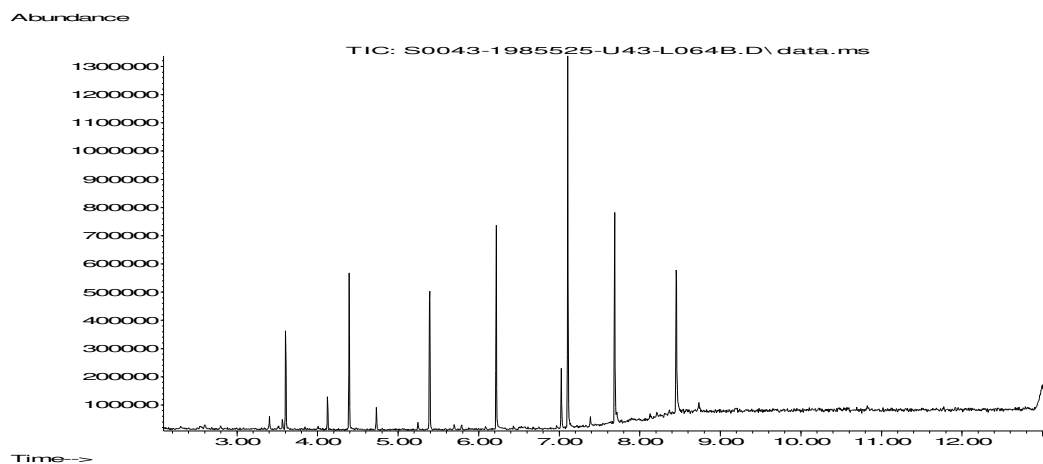












Analytical Report Number : 21-95123
Project / Site name: Dunsbury Park

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH1.01	None Supplied	S	1985522	c	Fraction Organic Carbon FOC Automated	L009	c
BH4.01	None Supplied	S	1985523	c	Fraction Organic Carbon FOC Automated	L009	c
BH4.02	None Supplied	S	1985524	c	Fraction Organic Carbon FOC Automated	L009	c
BH5.01	None Supplied	S	1985519	c	Free cyanide in soil	L080-PL	c
BH5.01	None Supplied	S	1985519	c	Fraction Organic Carbon FOC Automated	L009	c
BH5.01	None Supplied	S	1985519	c	Organic matter in soil	L023-PL	c
BH5.02	None Supplied	S	1985520	c	Free cyanide in soil	L080-PL	c
BH5.02	None Supplied	S	1985520	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
BH5.02	None Supplied	S	1985520	c	Fraction Organic Carbon FOC Automated	L009	c
BH5.02	None Supplied	S	1985520	c	Organic matter in soil	L023-PL	c
BH5.02	None Supplied	S	1985520	c	TPH in (Soil)	L076-PL	c
BH5.05	None Supplied	S	1985521	c	Free cyanide in soil	L080-PL	c
BH5.05	None Supplied	S	1985521	c	Fraction Organic Carbon FOC Automated	L009	c
BH6.01	None Supplied	S	1985525	c	Free cyanide in soil	L080-PL	c
BH6.01	None Supplied	S	1985525	c	Fraction Organic Carbon FOC Automated	L009	c

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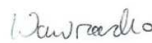
e: Group Southampton cc engineer

Analytical Report Number : 21-95400

Replaces Analytical Report Number: 21-95400, issue no. 1
Client sampling date amended.

Project / Site name:	Dunsbury Park	Samples received on:	25/08/2021
Your job number:	19453-GELO	Samples instructed on/ Analysis started on:	26/08/2021
Your order number:	PO09395	Analysis completed by:	03/09/2021
Report Issue Number:	2	Report issued on:	03/09/2021
Samples Analysed:	1 soil sample		

Signed:



Joanna Wawrzeczko
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-95400
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number					1987473
Sample Reference					BH6.02
Sample Number					None Supplied
Depth (m)					0.10
Date Sampled					19/08/2021
Time Taken					None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	
Moisture Content	%	0.01	NONE	11	
Total mass of sample received	kg	0.001	NONE	1.0	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.030
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.015

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.7
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.25
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2
Chromium (III)	mg/kg	1	NONE	15
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	36

Analytical Report Number: 21-95400
Project / Site name: Dunsbury Park
Your Order No: P009395

Lab Sample Number	1987473			
Sample Reference	BH6.02			
Sample Number	None Supplied			
Depth (m)	0.10			
Date Sampled	19/08/2021			
Time Taken	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35	mg/kg	10	MCERTS	< 10
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10

TPH Total C5 - C44	mg/kg	10	NONE	< 10
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U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-95400

Project / Site name: Dunsbury Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1987473	BH6.02	None Supplied	0.1	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 21-95400
Project / Site name: Dunsbury Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L0738-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS



Analytical Report Number : 21-95400
Project / Site name: Dunsbury Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

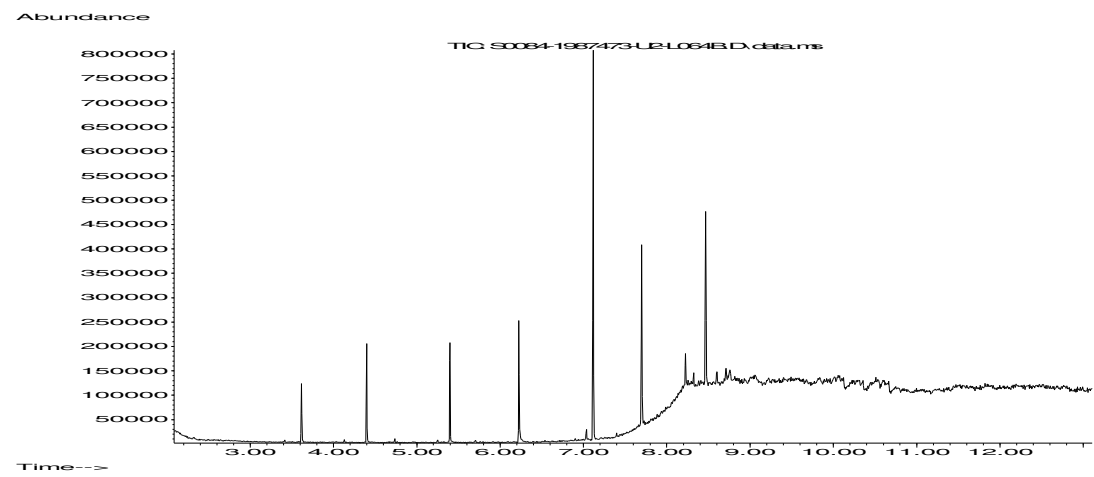
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



Sample Deviation Report



Analytical Report Number : 21-95400
Project / Site name: Dunsbury Park

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH6.02	None Supplied	S	1987473	c	Free cyanide in soil	L080-PL	c

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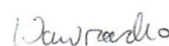
e: reception@i2analytical.com

e: Group Southampton cc engineer

Analytical Report Number : 21-98932

Project / Site name:	Dunsbury Park	Samples received on:	27/08/2021
Your job number:	19453-GELO ALL UNITS	Samples instructed on/ Analysis started on:	13/09/2021
Your order number:	PO09491	Analysis completed by:	21/09/2021
Report Issue Number:	1	Report issued on:	21/09/2021
Samples Analysed:	2 soil samples		

Signed:



Joanna Wawrzeczek
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-98932
Project / Site name: Dunsbury Park
Your Order No: PO09491

Lab Sample Number				2008292	2008293
Sample Reference				HP7.01	HP7.01
Sample Number				None Supplied	None Supplied
Depth (m)				0.20	0.80
Date Sampled				Deviating	Deviating
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	9.9	14
Total mass of sample received	kg	0.001	NONE	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	8.9
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.70	0.49
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0042	0.0057

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.6	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.60	0.76
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	3.0
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.7	1.7
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	39
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	39
Copper (aqua regia extractable)	mg/kg	1	MCERTS	130	230
Lead (aqua regia extractable)	mg/kg	1	MCERTS	34	78
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	19	42
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	39	48
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	360	870

Analytical Report Number: 21-98932

Project / Site name: Dunsbury Park

Your Order No: P009491

Lab Sample Number				2008292	2008293
Sample Reference				HP7.01	HP7.01
Sample Number				None Supplied	None Supplied
Depth (m)				0.20	0.80
Date Sampled				Deviating	Deviating
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	12
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	< 10	12

TPH Total C5 - C44	mg/kg	10	NONE	< 10	12
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 21-98932
Project / Site name: Dunsbury Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2008292	HP7.01	None Supplied	0.2	Brown clay and sand.
2008293	HP7.01	None Supplied	0.8	Brown clay and sand.

Analytical Report Number : 21-98932

Project / Site name: Dunsbury Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS



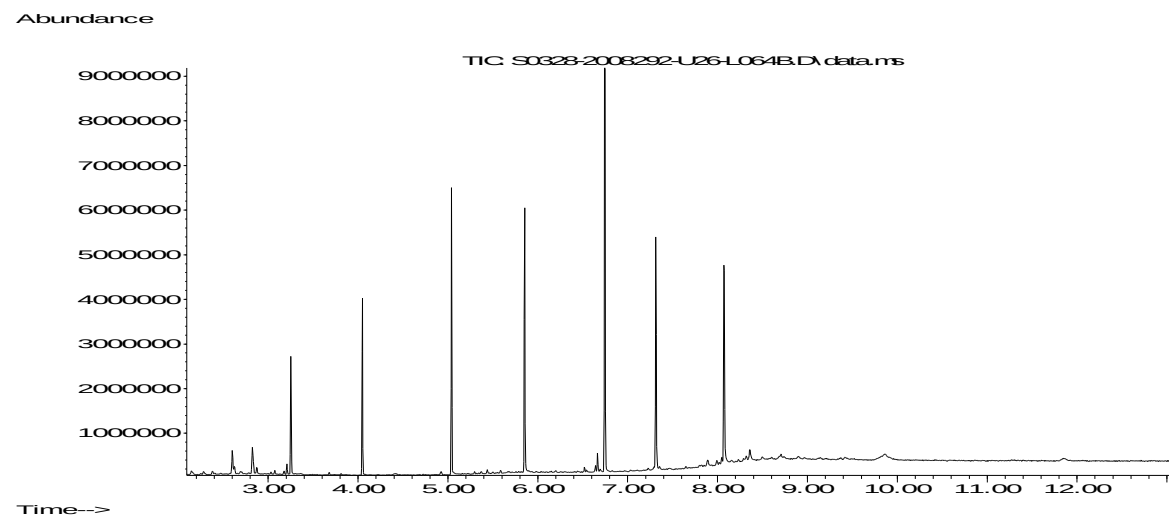
Analytical Report Number : 21-98932
Project / Site name: Dunsbury Park

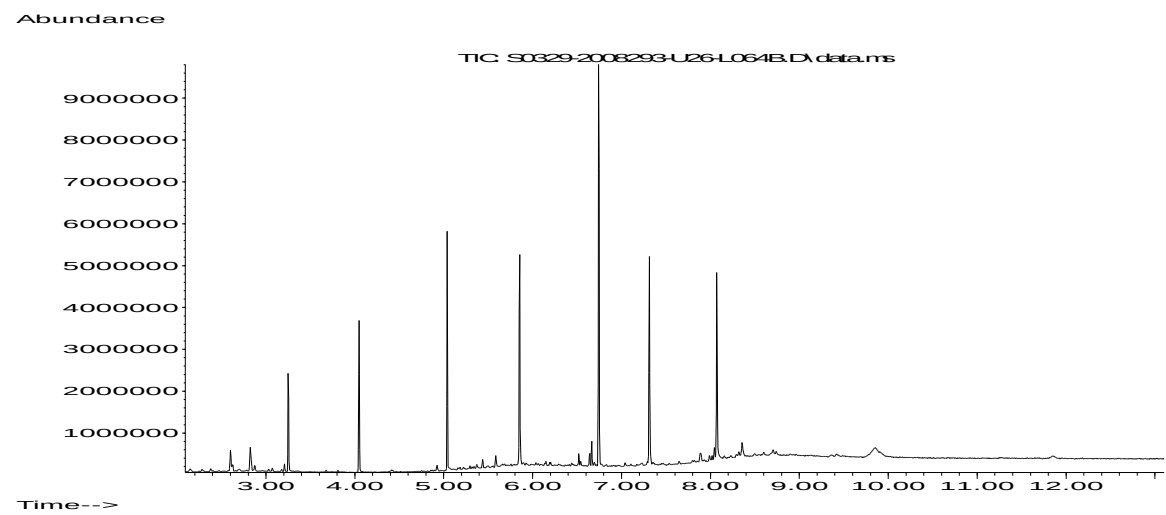
Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.





Sample Deviation Report



Analytical Report Number : 21-98932
Project / Site name: Dunsbury Park

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
HP7.01	None Supplied	S	2008292	a	None Supplied	None Supplied	None Supplied
HP7.01	None Supplied	S	2008293	a	None Supplied	None Supplied	None Supplied

Remedial Targets Methodology Data Table

Hydrock Scenario: Scenario D - DWS & EQS (inland)																					
RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples																					
Water body receptor(s): Groundwater and surface water																					
Secondary receptor(s): 0																					
Data set: Groundwater																					
Client: Portsmouth City Council																					
Site: Dunsbury Park																					
Job no: 19453-GELO																					
Test Certificates(s): 21-10737,21-11194																					
Dataset ALL ZONES																					
Surface Water Representative Hardness as mg/l CaCO ₃ 10																					
123* Exceeds solubility value																					
<1 Grey text and "<" sign if value <= LoD																					
999 Red text if value > DWS																					
Red fill if value > Inland Waters EQS																					
PNEC calculated (inland EQS)																					
Date sampled:																					
Strata / Zone																					
Unit 100																					
Unit 600																					
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Unit 700																					
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Remedial Targets Methodology Data Table

Water body receptor(s): Groundwater and surface water Secondary receptor(s): 0 Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset ALL ZONES										<div><div></div>PNEC calculated (inland EQS)</div>		123* Exceeds solubility value <1 Grey text and "<" sign if value <= LoD 999 Red text if value > DWS Red fill if value > Inland Waters EQS		Surface Water Representative Hardness as mg/l CaCO ₃ 10									
CAS / AGS Number	Chemical of Potential Concern (µg/l)	WFD Designation	Hazardous Substance Status	Solubility Limit (µg/l)	No. of samples	Limit of Detection	DWS	Inland Waters EQS	BH1.01	BH6.02	BH6.03	BH7.01	WS4.03	WS4.05	BH7.03	WS7.03	WS7.04	WS6.02	WS6.04	WS1.01			
P1374	m,p-Xylene		H	200000	12	1	500	30	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	48000000	12	1	15	n/a	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
71-55-6	1,1,1-Trichloroethane		NP	1300000	0		n/a	100															
79-00-5	1,1,2-Trichloroethane		NP	4490000	0		n/a	400															
96-12-8	1,2-Dibromo-3-chloropropane			1230000	0		0.1	n/a															
106-93-4	1,2-Dibromoethane		H	4300000	0		0.4	n/a															
95-50-1	1,2-Dichlorobenzene		H	133000	0		1000	20															
107-06-2	1,2-Dichloroethane (EDC)	P	NP	8680000	0		3	10															
156-59-2	cis 1,2-Dichloroethene (cis 1,2 DCE)		NP	7550000	0		50	n/a															
156-60-5	trans 1,2-Dichloroethene (trans 1,2 DCE)		NP	5250000	0		50	n/a															
78-87-5	1,2-Dichloropropane		H	2050000	0		40	n/a															
10061-01-5	cis 1,3-Dichloropropene		H	2700000	0		0.1	n/a															
10061-02-6	trans 1,3-Dichloropropene		H	2800000	0		0.1	n/a															
106-46-7	1,4-Dichlorobenzene		H	103000	0		300	20															
75-27-4	Bromodichloromethane			3000000	0		60	n/a															
75-01-4	Chloroethene (vinyl chloride)		H	2760000	0		0.5	n/a															
124-48-1	Dibromochloromethane			1050000	0		100	n/a															
25321-22-6	Dichlorobenzenes (1,2-, 1,3- & 1,4)				0		n/a	20															
75-09-2	Dichloromethane	P	NP	20100000	0		20	20															
87-68-3	Hexachlorobutadiene (HCBD)	PH	H	4800	0		0.1	0.6															
100-42-5	Styrene		H	290000	0		20	50															
25322-20-7	Tetrachloroethane (PCA)	SP			0		n/a	140															
127-18-4	Tetrachloroethene (PCE)	OP	NP	225000	0		10	10															
GRP02	Tetrachloroethene (PCE) and trichloroethene (TCE)				0		10	n/a															
56-23-5	Tetrachloromethane (Carbon Tetrachloride)	OP	H	846000	0		3	12															
75-25-2	Tribromomethane (bromoform)			3000000	0		100	n/a															
12002-48-1	Trichlorobenzenes	P	NP		0		n/a	0.4															
79-01-6	Trichloroethene	OP	H	1370000	0		10	10															
67-66-3	Trichloromethane (chloroform)	P	H	8950000	0		100	2.5															
GRP03	Trihalomethanes, sum of trichloromethane, tribromomethane, dibromochloromethane & bromodichloromethane				0		100	n/a															
88-06-2	2,4,6-Trichlorophenol		H	434000	0		200	n/a															
120-83-2	2,4-Dichlorophenol	SP	H	4500000	0		n/a	4.2															
95-57-8	2-Chlorophenol		H	22700000	0		n/a	50															
554-00-7	3,4-Dichloroaniline	SP			0		n/a	0.2															
108-43-0	3-Chlorophenol		H		0		n/a	50															
59-50-7	4-Chloro, 3-methylphenol		H		0		n/a	40															
106-48-9	4-Chlorophenol		H		0		n/a	50															
85-68-7	Benzyl butyl phthalate	SP			0		n/a	7.5															
117-81-7	Di(2-ethylhexylphthalate) (DEHP)	PH	NP		0		8	1.3															
84-74-2	Dibutyl phthalate		NP		0		n/a	8															
84-66-2	Diethyl phthalate (DEP)				0		n/a	200															
131-11-3	Dimethyl phthalate (DMP)				0		n/a	800															
117-84-0	Diocetyl phthalates				0		n/a	20															
118-74-1	Hexachlorobenzene	PH	H	9.6	0		0.1	0.05															
104-40-5	Nonylphenol (4-Nonylphenol)	PH			0		n/a	0.3															
140-66-9	Octylphenol ((4-(1,1', 3,3'-tetramethylbutyl)-phenol))	P			0		n/a	0.1															
608-93-5	Pentachlorobenzene	PH	H	500	0		n/a	0.007															
123-91-1	1,4-dioxane				0		50	n/a															
79-06-1	Acrylamide		H		0		0.1	n/a															
92-52-4	Biphenyl (cyclochlorocyclohexane)				0		n/a	25															
32534-81-9	Brominated diphenylethers (Sum congeners 28,47,99,100,153,154)	PH	H		0		n/a	0.14															
85535-84-8	Chloroalkanes C10-C13	PH	H		0		n/a	0.4															
25567-68-4	Chloronitrotoluenes		H		0		n/a	10															
3252-43-5	Dibromoacetonitrile				0		70	n/a															
13425-80-4	Dichloroacetate				0		50	n/a															

Remedial Targets Methodology Data Table

Water body receptor(s): Groundwater and surface water Secondary receptor(s): 0 Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset ALL ZONES								<div><div></div>PNEC calculated (inland EQS)</div>		123* Exceeds solubility value <1 Grey text and "<" sign if value <= LoD 999 Red text if value > DWS Red fill if value > Inland Waters EQS		Surface Water Representative Hardness as mg/l CaCO ₃ 10											
CAS / AGS Number	Chemical of Potential Concern (µg/l)	WFD Designation	Hazardous Substance Status	Solubility Limit (µg/l)	No. of samples	Limit of Detection	DWS	Inland Waters EQS	BH1.01	BH6.02	BH6.03	BH7.01	WS4.03	WS4.05	BH7.03	WS7.03	WS7.04	WS6.02	WS6.04	WS1.01			
3018-12-0	Dichloroacetoneitrile				0		20	n/a															
GRP04	Dioxins and dioxin-like compounds	PH			0		n/a	n/a															
3194-55-6	Hexabromocyclododecanes (HBCDD)	PH	H		0		n/a	0.0016															
2163-68-0	Hydroxyatrazine				0		200	n/a															
101043-37-2	Microcystin-LR				0		1	n/a															
62-75-9	N-nitrosodimethylamine				0		0.1	n/a															
1763-23-1	Perfluorooctane sulfonic acid (PFOS) & derivatives	PH	H		0		0.3	0.00065															
1336-36-3	Polychlorinated Biphenyls (PCB)		H		0		n/a	n/a															
2893-78-9	Sodium dichloroisoxanurate				0		50000	n/a															
126-73-8	Tributyl phosphate		H		0		n/a	50															
3380-34-5	Triclosan	SP			0		n/a	0.1															
7726-95-6	Bromine (Br)				0		n/a	2															
7782-50-5	Chlorine (total free available)	SP	NP		0		200	2															
14866-68-3	Chlorate				0		700	n/a															
14998-27-7	Chlorite				0		700	n/a															
60-00-4	EDTA (edetic acid)				0		600	400															
106-89-8	Epichlorohydrin		H		0		0.1	n/a															
569-64-2	Malachite green		H		0		n/a	0.5															
10599-90-3	Monochloramine				0		3000	n/a															
79-11-8	Monochloroacetate (Chloroacetic Acid)				0		20	n/a															
139-13-9	NTA (nitrilotriacetic acid)				0		200	1000															
76-03-9	Trichloroethanoic acid (trichloroacetate)				0		200	n/a															
7440-61-1	U (dissolved)				0		30	n/a															
36643-28-4	Tributyl tin compounds	PH	H		0		n/a	0.0002															
7783-06-4	Hydrogen Sulphide				0		n/a	0.25															
14797-73-0	Perchlorate				0		70	n/a															
GRP06	Total anions				0		n/a	250000															
93-76-5	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)		H		0		0.1	n/a															
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)	SP			0		0.1	0.3															
94-82-6	2,4-DB (4-(2,4-dichlorophenoxy butyric acid)				0		0.1	n/a															
71751-41-2	Abamectin				0		0.1	0.01															
74070-46-5	Acinofen	P			0		0.1	0.12															
15972-60-8	Alachlor	P	H		0		0.1	0.3															
116-06-3	Aldicarb		NP		0		0.1	n/a															
309-00-2	Aldrin		H		0		0.03	n/a															
GRP07	Aldrin & dieldrin		H		0		0.03	n/a															
1912-24-9	Atrazine	P	H	70000	0		0.1	0.6															
35575-96-3	Azamethiphos				0		0.1	n/a															
2642-71-9	Azinphos ethyl		H		0		0.1	n/a															
86-50-0	Azinphos-methyl		H	95000	0		0.1	0.01															
25057-89-0	Bentazone		NP		0		0.1	500															
42576-02-3	Bifenox	P	H		0		0.1	0.012															
1689-84-5	Bromoxynil		H		0		0.1	100															
10605-21-7	Carbendazim	SP	H		0		0.1	0.15															
1563-66-2	Carbofuran		NP		0		0.1	n/a															
57-74-9	Chlordane		H		0		0.1	n/a															
470-90-6	Chlorofenvinphos	P	H		0		0.1	0.1															
101-21-3	Chloroprotham		H		0		0.1	10															
2921-88-2	Chloropyrifos	P	H		0		0.1	0.03															
1897-45-6	Chlorothalonil	SP	H		0		0.1	0.035															
15545-48-9	Chlorotoluron		H		0		0.1	2															
GRP08	Cyclodiene pesticides, sum of Aldrin, Dieldrin, Endrin, Isodrin	OP	H		0		0.03	0.01															
56-72-4	Coumaphos		H		0		0.1	0.01															
21725-46-2	Cyanazine		H		0		0.1	n/a															
28159-98-0	Cybutryne	P			0		0.1	0.0025															
68359-37-5	Cyfluthrin				0		0.1	0.001															
52315-07-8	Cypermethrin	P	H		0		0.1	0.00008															
GRP09	DDT total (dichlorodiphenylthrichloroethane)	OP	H	5.73	0		0.1	0.025															
8065-48-3	Demeton		H		0		0.1	0.5															

Remedial Targets Methodology Data Table

Water body receptor(s): Groundwater and surface water Secondary receptor(s): 0 Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset ALL ZONES										<div><div></div>PNEC calculated (inland EQS)</div>		123*		Exceeds solubility value <1 Grey text and "<" sign if value <= LoD 999 Red text if value > DWS Red fill if value > Inland Waters EQS							
										Surface Water Representative Hardness as mg/l CaCO ₃ 10											
CAS / AGS Number	Chemical of Potential Concern (µg/l)	WFD Designation	Hazardous Substance Status	Solubility Limit (µg/l)	No. of samples	Limit of Detection	DWS	Strata / Zone	Unit 100	Unit 600	Unit 600	Unit 700	Unit 400	Unit 400	Unit 700	Unit 700	Unit 700	Unit 600	Unit 600	Unit 100	
								Date sampled:	15/09/2021	15/09/2021	15/09/2021	15/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	20/09/2021	
								Inland Waters EQS	BH1.01	BH6.02	BH6.03	BH7.01	WS4.03	WS4.05	BH7.03	WS7.03	WS7.04	WS6.02	WS6.04	WS1.01	
333-41-5	Diazinon (sheep dip)	SP	H		0		0.1	0.01													
120-36-5	Dichloroprop		H		0		0.1	n/a													
62-73-7	Dichlorvos	P	H	16000000	0		0.1	0.0006													
115-32-2	Dicofol	PH	H		0		0.1	0.0013													
60-57-1	Dieldrin		H	200	0		0.03	n/a													
35367-38-5	Diffubenzuron		H		0		0.1	0.001													
60-51-5	Dimethoate	SP	H		0		0.1	0.48													
330-54-1	Diuron	P	H		0		0.1	0.2													
117704-25-3	Doramectin				0		n/a	0.001													
115-29-7	Endosulfan	PH	H	280	0		0.1	0.005													
72-20-8	Endrin		H		0		0.1	n/a													
299-84-3	Fenchlorphos		H		0		0.1	0.03													
122-14-5	Fenitrothion		H	25300	0		0.1	0.01													
93-72-1	Fenoprop ((2,4,5-trichlorophenoxy)propionic acid)		H		0		0.1	n/a													
55-38-9	Fenthion		H		0		0.1	n/a													
370-50-3	Flucufuron				0		0.1	1													
50-00-0	Formaldehyde (methanal)		NP		0		0.1	5													
38641-94-0	Glyphosate	SP			0		0.1	196													
76-44-8	Heptachlor		H		0		0.03	0.0000002													
GRP10	Heptachlor & Heptachlor epoxide	PH	H		0		0.03	0.0000002													
1024-57-3	Heptachlor epoxide				0		0.03	0.0000002													
608-73-1	Hexachlorocyclohexane (includes lindane)	PH	H		0		0.1	0.02													
1689-83-4	Ioxynil		H		0		0.1	10													
465-73-6	Isodrin		H		0		0.1	n/a													
34123-69-6	Isoproturon	P	NP		0		0.1	0.3													
70288-86-7	Ivermectin				0		n/a	0.0001													
330-55-2	Linuron	SP	H		0		0.1	0.5													
121-75-5	Malathion		H	141000	0		0.1	0.01													
8018-01-07	Mancozeb		NP		0		0.1	2													
12427-38-2	Maneb		NP		0		0.1	3													
94-74-6	MCPA (4-(2-methyl-4-chlorophenoxy acetic acid))				0		0.1	12													
93-65-2	Mecoprop	SP	NP		0		0.1	18													
2032-65-7	Methiocarb	SP	NP		0		0.1	0.01													
72-43-5	Methoxychlor				0		0.1	n/a													
51218-45-2	Metolachlor				0		0.1	n/a													
7786-34-7	Mevinphos		H		0		0.1	0.02													
2212-67-1	Molinate				0		0.1	n/a													
1113-02-6	Omethoate		H		0		0.1	0.01													
50-29-3	para-para-DDT	OP	H		0		0.1	0.01													
56-38-2	Parathion		H		0		0.1	n/a													
298-00-0	Parathion-methyl		H		0		0.1	n/a													
GRP11	PCSDs (cyfluthrin, sulcofuron, flucufuron and permethrin)				0		n/a	0.05													
40487-42-1	Pendimethalin	SP	NP		0		0.1	0.3													
87-86-5	Pentachlorophenol	P	H	14000	0		0.1	0.4													
52645-53-1	Permethrin	SP	H		0		0.1	0.001													
GRP12	Pesticides (individual) (other than aldrin, dieldrin, heptachlor & heptachlor epoxide)				0		0.1	n/a													
GRP13	Pesticides (total)				0		0.5	n/a													
23103-98-2	Pirimicarb		NP		0		0.1	1													
29232-93-7	Pirimiphos - methyl		H		0		0.1	0.015													
67747-09-5	Prochloraz		H		0		0.1	4													
31218-83-4	Propetamphos		H		0		0.1	0.03													
23950-58-5	Propyzamide		H		0		0.1	100													
95737-68-1	Pyriproxyfen				0		0.1	n/a													
124495-18-7	Quinoxifen	PH			0		0.1	0.15													
122-34-9	Simazine	P	H		0		0.1	1													
3567-25-7	Sulcofuron				0		0.1	25													
117-18-0	Tecnazene (total)				0		0.1	1													
886-50-0	Tertbutryn	P	NP		0		0.1	0.065													
5915-41-3	Tertbutylazine		H		0		0.1	n/a													
148-79-8	Thiabendazole		NP		0		0.1	5													
2303-17-5	Triallate		H		0		0.1	0.25													
24017-47-8	Triazaphos		H		0		0.1	0.005													

Remedial Targets Methodology Data Table



Water body receptor(s): Groundwater and surface water										<div></div> PNEC calculated (inland EQS)		123* Exceeds solubility value										
Secondary receptor(s): 0												<1 Grey text and "<" sign if value <= LoD										
Data set: Groundwater										999 Red text if value > DWS												
Client: Portsmouth City Council										<div></div> Red fill if value > Inland Waters EQS												
Site: Dunsbury Park																						
Job no: 19453-GELO																						
Test Certificates(s): 21-10737,21-11194										Surface Water Representative Hardness as mg/l CaCO ₃ 10												
Dataset ALL ZONES																						
										Strata / Zone	Unit 100	Unit 600	Unit 600	Unit 700	Unit 400	Unit 700	Unit 700	Unit 700	Unit 600	Unit 600	Unit 100	
										Date sampled:	15/09/2021	15/09/2021	15/09/2021	15/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	24/09/2021	20/09/2021	
CAS / AGS Number	Chemical of Potential Concern (µg/l)	WFD Designation	Hazardous Substance Status	Solubility Limit (µg/l)	No. of samples	Limit of Detection	DWS	Inland Waters EQS	BH1.01	BH6.02	BH6.03	BH7.01	WS4.03	WS4.05	BH7.03	WS7.03	WS7.04	WS6.02	WS6.04	WS1.01		
1582-09-8	Trifluralin	PH	H	1000	0		0.1	0.03														
1262-21-1	Triphenyltin and derivatives		H		0		0.1	0.02														

Summary of Remedial Targets Methodology Screening

Hydrock Scenario: Scenario D - DWS & EQS (inland) RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 100											<div></div> <div>PNEC calculated (inland EQS)</div>		2013/39/EU Annex I P = priority substance PH = priority hazardous substances. WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment				
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95%-ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
P1133	Hardness as mg/l CaCO ₃			-	-	-	10	-	-	-	-	-					Representative hardness of receiving surface water environment used in some inland EQS
7440-22-4	Silver (Ag) (dissolved)			2	0	0.05	<0.05	<0.05	<0.05	<0.05	n/a	0.05		0		0	
7429-90-5	Aluminium (Al) (dissolved)			2	2	1	1.5	24	22.875	24	200	n/a	0		0		
7440-38-2	Arsenic (As) (dissolved)	SP	H	2	2	0.15	0.24	0.32	0.316	0.32	10	50	0	0	0	0	
7440-42-8	Boron (B) (dissolved)		NP	2	2	10	62	86	84.8	86	1000	2000	0	0	0	0	
7440-39-3	Barium (Ba) (dissolved)			2	2	0.06	67	72	71.75	72	1300	n/a	0	0	0	0	
7440-43-9	Cadmium (Cd) (dissolved)	PH	NP	2	1	0.02	<0.02	0.17	0.1625	0.17	5	0.08	0	1	0	1	EQS (inland) dependent on hardness of receiving surface water environment
7440-48-4	Cobalt (Co) (dissolved)		NP	2	2	0.2	0.6	6	5.73	6	n/a	3	1	1	1	1	
18540-29-9	Chromium (VI) (Cr) (dissolved)	SP	H	2	0	5	<5	<5	<5	<5	n/a	3.4	2		0	0	
16065-83-1	Chromium (III) (Cr) (dissolved)	SP		2	2	1	2	2.4	2.38	2.4	n/a	4.7		0	0	0	
7440-47-3	Chromium (Cr) (total) (dissolved)			2	2	0.2	2	2.4	2.38	2.4	50	n/a	0		0	0	
7440-50-8	Copper (Cu) (dissolved)	SP	NP	2	2	0.5	2.7	3.4	3.365	3.4	2000	1	0	2	0	2	Bioavailable EQS (inland)
7439-89-6	Iron (Fe) (dissolved)	SP		2	2	4	8	29	27.95	29	200	1000	0	0	0	0	
7439-97-6	Mercury (Hg) (dissolved)	PH	H	2	0	0.05	<0.05	<0.05	<0.05	<0.05	1	0.07	0	0	0	0	
P1286	Manganese (Mn) (dissolved)	SP		2	2	0.05	21	300	286.05	300	50	123	1	1	1	1	Bioavailable EQS (inland)
7440-23-5	Sodium (Na) (dissolved)			2	2	0.01	26	34	33.6	34	200000	n/a	0		0	0	
7440-02-0	Nickel (Ni) (dissolved)	P	NP	2	2	0.5	1.4	13	12.42	13	20	4	0	1	0	1	Bioavailable EQS (inland)
7439-92-1	Lead (Pb) (dissolved)	P	H	2	0	0.2	<0.2	<0.2	<0.2	<0.2	10	1.2	0	0	0	0	Bioavailable EQS (inland)
7440-36-0	Antimony (Sb) (dissolved)		NP	2	2	0.4	0.5	0.6	0.595	0.6	5	n/a	0	0	0	0	
7782-49-2	Selenium (Se) (dissolved)		NP	2	0	0.6	<0.6	<0.6	<0.6	<0.6	10	n/a	0	0	0	0	
7440-31-5	Tin (Sn) (dissolved)			2	1	0.2	<0.2	0.35	0.3425	0.35	n/a	25		0	0	0	
7440-62-2	Vanadium (V) (dissolved)			2	1	0.2	<0.2	0.6	0.58	0.6	n/a	20		0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
7440-66-6	Zinc (Zn) (dissolved)	SP	NP	2	2	0.5	4.4	8.4	8.2	8.4	n/a	12.3		0	0	0	Bioavailable EQS (inland) + ambient background concentration (ABC)
P1095	Cyanide (free) (hydrogen cyanide)	SP	NP	2	0	1	<1	<1	<1	<1	n/a	1		0	0	0	
57-12-5	Cyanide (total)			2	0	1	<1	<1	<1	<1	50	n/a	0		0	0	
P1140	Ammonium (NH ₄ ⁺)		NP	2	2	15	82	220	213.1	220	500	n/a	0		0	0	
P1238	Ammoniacal Nitrogen (as N)		NP	2	2	15	64	170	164.7	170	n/a	300		0	0	0	
P1720	Ammonia (unionised) (NH ₃ as N) (free ammonia)	SP	NP	2	2	15	77	210	203.35	210	n/a	n/a		0	0	0	
15541-45-4	Bromate (BrO ₃)			2	0	0.002	<0.002	<0.002	<0.002	<0.002	10	n/a	0	0	0	0	
16887-00-6	Chloride (Cl ⁻)			2	2	0.15	20	35	34.25	35	250000	250000	0	0	0	0	
16984-48-8	Fluoride (F ⁻)			2	2	50	120	370	357.5	370	1500	1000	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
P1348	Nitrate (NO ₃ ⁻)			2	2	0.05	2.12	15.9	15.211	15.9	50000	n/a	0	0	0	0	
P1349	Nitrite (NO ₂ ⁻)			2	1	5	<5	500	475.25	500	500	n/a	0	0	0	0	
14808-79-8	Sulfate (SO ₄ ²⁻)			2	2	45	22700	39000	38185	39000	250000	400000	0	0	0	0	
P1134	pH (min.) (su)			2	2	0	6.9	7.7	7.66	7.7	6.5	6	0	0	0	0	
P1134	pH (max.) (su)			2	2	0	6.9	7.7	7.66	7.7	9.5	9	0	0	0	0	
P1287	Electrical conductivity (µS/cm)			2	2	10	430	580	572.5	580	2500	n/a	0	0	0	0	
120-12-7	Anthracene	PH	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.1		0	0	0	
50-32-8	Benzo(a)pyrene	PH	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.00017	0	2	0	0	Benzo(a)pyrene EQS used as marker substance for the group of benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene & indeno (1,2,3-cd)pyrene
206-44-0	Fluoranthene	P	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.0063	2	2	0	0	
91-20-3	Naphthalene	P	NP	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2		0	0	0	
GRP01	PAHs = sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene	P	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2		0	0	0	
P1877	Phenol	SP	NP	2	2	0.01	0.04	0.04	0.04	0.04	0.1	n/a	0		0	0	
P1407	Ali >EC5-EC6			2	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-hexane fall within this fraction
P1408	Ali >EC6-EC8			2	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-heptane falls within this fraction
P1409	Ali >EC8-EC10			2	0	1	<1	<1	<1	<1	300	10	0	0	0	0	n-octane and n-nonane fall within this fraction
P1410	Ali >EC10-EC12			2	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1411	Ali >EC12-EC16			2	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1938	Ali >EC16-EC35			2	0	10	<10	<10	<10	<10	n/a	10		0	0	0	
P1415	Ali >EC35-EC44			2	0	10	<10	<10	<10	<10	n/a	10		0	0	0	
P1441	Aro >EC5-EC7			2	0	1	<1	<1	<1	<1	1	10	0	0	0	0	Benzene wholly representative of this fraction
P1355	Aro >EC7-EC8			2	0	1	<1	<1	<1	<1	700	10	0	0	0	0	Toluene wholly representative of this fraction
P1356	Aro >EC8-EC10			2	0	1	<1	<1	<1	<1	300	10	0	0	0	0	Ethylbenzene / xylene / trimethylbenzene representative of this range
P1357	Aro >EC10-EC12			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Naphthalene often forms a reasonable percentage of this fraction
P1358	Aro >EC12-EC16			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	2-methylnaphthalene, acenaphthylene, acenaphthene falls within this fraction
P1359	Aro >EC16-EC21			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	fluorene, anthracene, phenanthrene, pyrene falls within this range
P1360	Aro >EC21-EC35			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene fall within this fraction

Summary of Remedial Targets Methodology Screening

RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 100											<div></div> <div>PNEC calculated (inland EQS)</div>		P= priority substance PH = priority hazardous substances. WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
P1362	Aro >EC35-EC44			2	0	10	<10	<10	<10	<10	n/a	10						
71-43-2	Benzene	P	H	2	0	1	<1	<1	<1	<1	1	10	0	0	0	0		
108-88-3	Toluene	SP	H	2	0	1	<1	<1	<1	<1	700	74	0	0	0	0		
100-41-4	Ethylbenzene		H														Proposed EQS for Ethylbenzene in Water, R&D Technical Report P2-115/TR4, EA 2001	
95-47-6	o-Xylene		H	2	0	1	<1	<1	<1	<1	300	20	0	0	0	0	DWS/EQS for total xylene	
P1374	m,p-Xylene		H	2	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	2	0	1	<1	<1	<1	<1	15	n/a	0		0		Non health based value - WHO odour threshold	
71-55-6	1,1,1-Trichloroethane		NP	0							n/a	100						
79-00-5	1,1,2-Trichloroethane		NP	0							n/a	400						
96-12-8	1,2-Dibromo-3-chloropropane			0							0.1	n/a						
106-93-4	1,2-Dibromoethane		H	0							0.4	n/a						
95-50-1	1,2-Dichlorobenzene		H	0							1000	20						
107-06-2	1,2-Dichloroethane (EDC)	P	NP	0							3	10						
156-59-2	cis 1,2-Dichloroethene (cis 1,2 DCE)		NP								50	n/a					DWS is for combined isomers	
156-60-5	trans 1,2-Dichloroethene (trans 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
78-87-5	1,2-Dichloropropane		H	0							40	n/a						
10061-01-5	cis 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
10061-02-6	trans 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
106-46-7	1,4-Dichlorobenzene		H	0							300	20						
75-27-4	Bromodichloromethane			0							60	n/a						
75-01-4	Chloroethene (vinyl chloride)		H	0							0.5	n/a						
124-48-1	Dibromochloromethane			0							100	n/a						
25321-22-6	Dichlorobenzenes (1,2-, 1,3- & 1,4-)			0							n/a	20						
75-09-2	Dichloromethane	P	NP	0							20	20						
87-68-3	Hexachlorobutadiene (HCBD)	PH	H	0							0.1	0.6						
100-42-5	Styrene		H	0							20	50						
25322-20-7	Tetrachloroethane (PCA)	SP		0							n/a	140						
127-18-4	Tetrachloroethene (PCE)	OP	NP	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
GRP02	Tetrachloroethene (PCE) and trichloroethene (TCE)			0							10	n/a					UK DWS applies to sum of tetrachloroethene and trichloroethene	
56-23-5	Tetrachloromethane (Carbon Tetrachloride)	OP	H	0							3	12						
75-25-2	Tribromomethane (bromoform)			0							100	n/a						
12002-48-1	Trichlorobenzenes	P	NP	0							n/a	0.4						
79-01-6	Trichloroethene	OP	H	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
67-66-3	Trichloromethane (chloroform)	P	H	0							100	2.5						
GRP03	Trihalomethanes, sum of trichloromethane, tribromomethane, dibromochloromethane & bromodichloromethane			0							100	n/a						
88-06-2	2,4,6-Trichlorophenol		H	0							200	n/a						
120-83-2	2,4-Dichlorophenol	SP	H	0							n/a	4.2						
95-57-8	2-Chlorophenol		H	0							n/a	50						
554-00-7	3,4-Dichloroaniline	SP		0							n/a	0.2						
108-43-0	3-Chlorophenol		H	0							n/a	50						
59-50-7	4-Chloro, 3-methylphenol		H	0							n/a	40						
106-48-9	4-Chlorophenol		H	0							n/a	50						
85-68-7	Benzyl butyl phthalate	SP		0							n/a	7.5						
117-81-7	Di(2-ethylhexylphthalate) (DEHP)	PH	NP	0							8	1.3						
84-74-2	Dibutyl phthalate		NP	0							n/a	8						
84-66-2	Diethyl phthalate (DEP)			0							n/a	200						
131-11-3	Dimethyl phthalate (DMP)			0							n/a	800						
117-84-0	Diethyl phthalates			0							n/a	20						
118-74-1	Hexachlorobenzene	PH	H	0							0.1	0.05						
104-40-5	Nonylphenol (4-Nonylphenol)	PH		0							n/a	0.3						
140-66-9	Octylphenol ((4-(1,1', 3,3'-tetramethylbutyl)-phenol))	P		0							n/a	0.1						
608-93-5	Pentachlorobenzene	PH	H	0							n/a	0.007						
123-91-1	1,4-dioxane			0							50	n/a						
79-06-1	Acrylamide		H	0							0.1	n/a						
92-52-4	Biphenyl (cyclochlorocyclohexane)			0							n/a	25						

Summary of Remedial Targets Methodology Screening

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Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 100										PNEC calculated (inland EQS)								
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
32534-81-9	Brominated diphenylethers (Sum congeners 28,47,99,100,153,154)	PH	H	0							n/a	0.14						
85535-84-8	Chloroalkanes C10-C13	PH	H	0							n/a	0.4						
25567-68-4	Chloronitrotoluenes		H	0							n/a	10						
3252-43-5	Dibromoacetone			0							70	n/a						
13425-80-4	Dichloroacetate			0							50	n/a						
3018-12-0	Dichloroacetonitrile			0							20	n/a						
GRP04	Dioxins and dioxin-like compounds	PH		0							n/a	n/a						
3194-55-6	Hexabromocyclododecanes (HBCDD)	PH	H	0							n/a	0.0016						
2163-68-0	Hydroxyatrazine			0							200	n/a						
101043-37-2	Microcystin-LR			0							1	n/a						
62-75-9	N-nitrosodimethylamine			0							0.1	n/a						
1763-23-1	Perfluorooctane sulfonic acid (PFOS) & derivatives	PH	H	0							0.3	0.00065						DWS represents DWI (2009) Tier 2 action value (commence monitoring).
1336-36-3	Polychlorinated Biphenyls (PCB)		H	0							n/a	n/a						
2893-78-9	Sodium dichloroisoxanurate			0							50000	n/a						
126-73-8	Tributyl phosphate		H	0							n/a	50						
3380-34-5	Triclosan	SP		0							n/a	0.1						
7726-95-6	Bromine (Br)			0							n/a	2						
7782-50-5	Chlorine (total free available)	SP	NP	0							200	2						
14866-68-3	Chlorate			0							700	n/a						
14998-27-7	Chlorite			0							700	n/a						
60-00-4	EDTA (edetic acid)			0							600	400						
106-89-8	Epichlorohydrin		H	0							0.1	n/a						
569-64-2	Malachite green		H	0							n/a	0.5						
10599-90-3	Monochloramine			0							3000	n/a						
79-11-8	Monochloroacetate (Chloroacetic Acid)			0							20	n/a						
139-13-9	NTA (nitrilotriacetic acid)			0							200	1000						
76-03-9	Trichloroethanoic acid (trichloroacetate)			0							200	n/a						
7440-61-1	U (dissolved)			0							30	n/a						
36643-28-4	Tributyl tin compounds	PH	H	0							n/a	0.0002						
7783-06-4	Hydrogen Sulphide			0							n/a	0.25						
14797-73-0	Perchlorate			0							70	n/a						
GRP06	Total anions			0							n/a	250000						
93-76-5	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)		H	0							0.1	n/a						
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)	SP		0							0.1	0.3						
94-82-6	2,4-DB (4-(2,4-dichlorophenoxy)butyric acid)			0							0.1	n/a						
71751-41-2	Abamectin			0							0.1	0.01						
74070-46-5	Acinofen	P		0							0.1	0.12						
15972-60-8	Alachlor	P	H	0							0.1	0.3						
116-06-3	Aldicarb		NP	0							0.1	n/a						
309-00-2	Aldrin		H	0							0.03	n/a						
GRP07	Aldrin & dieldrin		H	0							0.03	n/a						
1912-24-9	Atrazine	P	H	0							0.1	0.6						
35575-96-3	Azamethiphos			0							0.1	n/a						
2642-71-9	Azinphos ethyl		H	0							0.1	n/a						
86-50-0	Azinphos-methyl		H	0							0.1	0.01						
25057-89-0	Bentazone		NP	0							0.1	500						
42576-02-3	Bifenox	P	H	0							0.1	0.012						
1689-84-5	Bromoxynil		H	0							0.1	100						
10605-21-7	Carbendazim	SP	H	0							0.1	0.15						
1563-66-2	Carbofuran		NP	0							0.1	n/a						
57-74-9	Chlordane		H	0							0.1	n/a						
470-90-6	Chlorofenvinphos	P	H	0							0.1	0.1						
101-21-3	Chloroproprham		H	0							0.1	10						
2921-88-2	Chloropyrifos	P	H	0							0.1	0.03						
1897-45-6	Chlorothalonil	SP	H	0							0.1	0.035						
15545-48-9	Chlorotoluron		H	0							0.1	2						
GRP08	Cyclodiene pesticides, sum of Aldrin, Dieldrin, Endrin, Isodrin	OP	H	0							0.03	0.01						
56-72-4	Coumaphos		H	0							0.1	0.01						

Summary of Remedial Targets Methodology Screening

RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 100										<div><div></div><div>PNEC calculated (inland EQS)</div></div>		<div>P = priority substance PH = priority hazardous substances WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
21725-46-2	Cyanazine		H	0							0.1	n/a					
28159-98-0	Cybutryne	P		0							0.1	0.0025					
68359-37-5	Cyfluthrin			0							0.1	0.001					
52315-07-8	Cypermethrin	P	H	0							0.1	0.00008					
GRP09	DDT total (dichlorodiphenyltrichloroethane)	OP	H														
				0							0.1	0.025					
8065-48-3	Demeton		H	0							0.1	0.5					
333-41-5	Diazinon (sheep dip)	SP	H	0							0.1	0.01					
120-36-5	Dichloroprop		H	0							0.1	n/a					
62-73-7	Dichlorvos	P	H	0							0.1	0.0006					
115-32-2	Dicofol	PH	H	0							0.1	0.0013					
60-57-1	Dieldrin		H	0							0.03	n/a					
35367-38-5	Diffubenzuron		H	0							0.1	0.001					
60-51-5	Dimethoate	SP	H	0							0.1	0.48					
330-54-1	Diuron	P	H	0							0.1	0.2					
117704-25-3	Doramectin			0							n/a	0.001					
115-29-7	Endosulfan	PH	H	0							0.1	0.005					
72-20-8	Endrin		H	0							0.1	n/a					
299-84-3	Fenchlorphos		H	0							0.1	0.03					
122-14-5	Fenitrothion		H	0							0.1	0.01					
93-72-1	Fenoprop ((2,4,5-trichlorophenoxy)propionic acid)		H														
				0							0.1	n/a					
55-38-9	Fenthion		H	0							0.1	n/a					
370-50-3	Flucifuron			0							0.1	1					
50-00-0	Formaldehyde (methanal)		NP	0							0.1	5					
38641-94-0	Glyphosate	SP		0							0.1	196					
76-44-8	Heptachlor		H	0							0.03	2E-07					
GRP10	Heptachlor & Heptachlor epoxide	PH	H														
				0							0.03	2E-07					
1024-57-3	Heptachlor epoxide			0							0.03	2E-07					
608-73-1	Hexachlorocyclohexane (includes lindane)	PH	H	0							0.1	0.02					
1689-83-4	Ioxynil		H	0							0.1	10					
465-73-6	Isodrin		H	0							0.1	n/a					
34123-69-6	Isoproturon	P	NP	0							0.1	0.3					
70288-86-7	Ivermectin			0							n/a	0.0001					
330-55-2	Linuron	SP	H	0							0.1	0.5					
121-75-5	Malathion		H	0							0.1	0.01					
8018-01-07	Mancozeb		NP	0							0.1	2					
12427-38-2	Maneb		NP	0							0.1	3					
94-74-6	MCPA (4-(2-methyl-4-chlorophenoxy acetic acid))			0							0.1	12					EQS inland dependant on pH. Default 12µg/l as conservative approach
93-65-2	Mecoprop	SP	NP	0							0.1	18					
2032-65-7	Methiocarb	SP	NP	0							0.1	0.01					
72-43-5	Methoxychlor			0							0.1	n/a					
51218-45-2	Metolachlor			0							0.1	n/a					
7786-34-7	Mevinphos		H	0							0.1	0.02					
2212-67-1	Molinate			0							0.1	n/a					
1113-02-6	Omethoate		H	0							0.1	0.01					
50-29-3	para-para-DDT	OP	H	0							0.1	0.01					
56-38-2	Parathion		H	0							0.1	n/a					
298-00-0	Parathion-methyl		H	0							0.1	n/a					
GRP11	PCSDs (cyfluthrin, sulcufuron, flucifuron and permethrin)			0							n/a	0.05					
40487-42-1	Pendimethalin	SP	NP	0							0.1	0.3					
87-86-5	Pentachlorophenol	P	H	0							0.1	0.4					
52645-53-1	Permethrin	SP	H	0							0.1	0.001					
GRP12	Pesticides (individual) (other than aldrin, dieldrin, heptachlor & heptachlor epoxide)			0							0.1	n/a					
GRP13	Pesticides (total)			0							0.5	n/a					
23103-98-2	Pirimicarb		NP	0							0.1	1					
29232-93-7	Pirimiphos - methyl		H	0							0.1	0.015					
67747-09-5	Prochloraz		H	0							0.1	4					
31218-83-4	Propetamphos		H	0							0.1	0.03					
23950-58-5	Propyzamide		H	0							0.1	100					
95737-68-1	Pyriproxyfen			0							0.1	n/a					

Summary of Remedial Targets Methodology Screening



RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 100										<div><div></div><div>PNEC calculated (inland EQS)</div></div>		<div>P = priority substance PH = priority hazardous substances. WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
124495-18-7	Quinoxifen	PH		0							0.1	0.15					EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
122-34-9	Simazine	P	H	0							0.1	1					
3567-25-7	Sulcofuron			0							0.1	25					
117-18-0	Tecnazene (total)			0							0.1	1					
886-50-0	Tertbutryn	P	NP	0							0.1	0.065					
5915-41-3	Tertbutylazine		H	0							0.1	n/a					
148-79-8	Thiabendazole		NP	0							0.1	5					
2303-17-5	Triallate		H	0							0.1	0.25					
24017-47-8	Triazaphos		H	0							0.1	0.005					
1582-09-8	Trifluralin	PH	H	0							0.1	0.03					
1262-21-1	Triphenyltin and derivatives		H	0							0.1	0.02					

Summary of Remedial Targets Methodology Screening

Hydrock Scenario: Scenario D - DWS & EQS (inland) RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 400											<div></div> <div></div> <div>PNEC calculated (inland EQS)</div>		<div>2013/39/EU Annex I</div> <div>P = priority substance</div> <div>PH = priority hazardous substances.</div> <div>WFD Designation (2015 Directions)</div> <div>OP = Other substance identical to previous legislation</div> <div>SP = Specific Pollutant</div> <div>JAGDAG Hazardous Substances Determination (UK)</div> <div>H Hazardous substance</div> <div>NP Non-hazardous pollutant</div> <div>(blank) Not included in assessment</div>				
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95%-ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
P1133	Hardness as mg/l CaCO ₃			-	-	-	10	-	-	-	-	-					EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
7440-22-4	Silver (Ag) (dissolved)			2	0	0.05	<0.05	<0.05	<0.05	n/a	0.05		0		0		Representative hardness of receiving surface water environment used in some inland EQS
7429-90-5	Aluminium (Al) (dissolved)			2	2	1	2.4	3.5	3.445	3.5	200	n/a	0		0		
7440-38-2	Arsenic (As) (dissolved)	SP	H	2	2	0.15	0.59	2.72	2.6135	2.72	10	50	0	0	0	0	
7440-42-8	Boron (B) (dissolved)		NP	2	2	10	31	41	40.5	41	1000	2000	0	0	0	0	
7440-39-3	Barium (Ba) (dissolved)			2	2	0.06	33	45	44.4	45	1300	n/a	0	0	0	0	
7440-43-9	Cadmium (Cd) (dissolved)	PH	NP	2	0	0.02	<0.02	<0.02	<0.02	<0.02	5	0.08	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
7440-48-4	Cobalt (Co) (dissolved)		NP	2	2	0.2	0.8	3.5	3.365	3.5	n/a	3		1		1	
18540-29-9	Chromium (VI) (Cr) (dissolved)	SP	H	2	0	5	<5	<5	<5	<5	n/a	3.4		2		0	
16065-83-1	Chromium (III) (Cr) (dissolved)	SP		2	2	1	1.8	1.9	1.895	1.9	n/a	4.7		0		0	
7440-47-3	Chromium (Cr) (total) (dissolved)			2	2	0.2	1.8	1.9	1.895	1.9	50	n/a	0		0		
7440-50-8	Copper (Cu) (dissolved)	SP	NP	2	2	0.5	1.1	3	2.905	3	2000	1	0	2	0	2	Bioavailable EQS (inland)
7439-89-6	Iron (Fe) (dissolved)	SP		2	2	4	31	35	34.8	35	200	1000	0	0	0	0	
7439-97-6	Mercury (Hg) (dissolved)	PH	H	2	0	0.05	<0.05	<0.05	<0.05	<0.05	1	0.07	0	0	0	0	
P1286	Manganese (Mn) (dissolved)	SP		2	2	0.05	360	570	559.5	570	50	123	2	2	2	2	Bioavailable EQS (inland)
7440-23-5	Sodium (Na) (dissolved)			2	2	0.01	13	39	37.7	39	200000	n/a	0		0		
7440-02-0	Nickel (Ni) (dissolved)	P	NP	2	2	0.5	4.3	4.4	4.395	4.4	20	4	0	2	0	2	Bioavailable EQS (inland)
7439-92-1	Lead (Pb) (dissolved)	P	H	2	0	0.2	<0.2	<0.2	<0.2	<0.2	10	1.2	0	0	0	0	Bioavailable EQS (inland)
7440-36-0	Antimony (Sb) (dissolved)		NP	2	1	0.4	<0.4	0.5	0.495	0.5	5	n/a	0	0		0	
7782-49-2	Selenium (Se) (dissolved)		NP	2	2	0.6	0.7	0.9	0.89	0.9	10	n/a	0			0	
7440-31-5	Tin (Sn) (dissolved)			2	1	0.2	<0.2	0.58	0.561	0.58	n/a	25		0		0	
7440-62-2	Vanadium (V) (dissolved)			2	0	0.2	<0.2	<0.2	<0.2	<0.2	n/a	20		0		0	EQS (inland) dependent on hardness of receiving surface water environment
7440-66-6	Zinc (Zn) (dissolved)	SP	NP	2	2	0.5	3.4	3.8	3.78	3.8	n/a	12.3		0		0	Bioavailable EQS (inland) + ambient background concentration (ABC)
P1095	Cyanide (free) (hydrogen cyanide)	SP	NP	2	0	1	<1	<1	<1	<1	n/a	1		0		0	
57-12-5	Cyanide (total)			2	0	1	<1	<1	<1	<1	50	n/a	0		0	0	
P1140	Ammonium (NH ₄ ⁺)		NP	2	2	15	34	84	81.5	84	500	n/a	0		0	0	
P1238	Ammoniacal Nitrogen (as N)		NP	2	2	15	27	65	63.1	65	n/a	300		0		0	
P1720	Ammonia (unionised) (NH ₃ as N) (free ammonia)	SP	NP	2	2	15	32	79	76.65	79	n/a	n/a					
15541-45-4	Bromate (BrO ₃ ⁻)			2	0	0.002	<0.002	<0.002	<0.002	<0.002	10	n/a	0		0	0	
16887-00-6	Chloride (Cl ⁻)			2	2	0.15	16	30	29.3	30	250000	250000	0	0	0	0	
16984-48-8	Fluoride (F ⁻)			2	2	50	180	180	180	180	1500	1000	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
P1348	Nitrate (NO ₃ ⁻)			2	2	0.05	0.41	0.47	0.467	0.47	50000	n/a	0		0	0	
P1349	Nitrite (NO ₂ ⁻)			2	0	5	<5	<5	<5	<5	500	n/a	0		0	0	
14808-79-8	Sulfate (SO ₄ ²⁻)			2	2	45	83200	210000	203660	210000	250000	400000	0	0	0	0	
P1134	pH (min.) (su)			2	2	0	7.1	7.3	7.29	7.3	6.5	6	0	0	0	0	
P1134	pH (max.) (su)			2	2	0	7.1	7.3	7.29	7.3	9.5	9	0	0	0	0	
P1287	Electrical conductivity (µS/cm)			0							2500	n/a					
120-12-7	Anthracene	PH	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.1		0		0	
50-32-8	Benzo(a)pyrene	PH	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.00017	0	2	0	0	Benzo(a)pyrene EQS used as marker substance for the group of benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene & indeno (1,2,3-cd)pyrene
206-44-0	Fluoranthene	P	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.0063		2		0	
91-20-3	Naphthalene	P	NP	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2		0		0	
GRP01	PAHs = sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene	P	H	2	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2		0		0	
P1877	Phenol	SP	NP	2	2	0.01	0.04	0.04	0.04	0.04	0.1	n/a	0		0	0	
P1407	Ali EC5-EC6			2	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-hexane fall within this fraction
P1408	Ali >EC6-EC8			2	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-heptane falls within this fraction
P1409	Ali >EC8-EC10			2	0	1	<1	<1	<1	<1	300	10	0	0	0	0	n-octane and n-nonane fall within this fraction
P1410	Ali >EC10-EC12			2	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1411	Ali >EC12-EC16			2	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1938	Ali >EC16-EC35			2	0	10	<10	<10	<10	<10	n/a	10		0		0	
P1415	Ali >EC35-EC44			2	0	10	<10	<10	<10	<10	n/a	10		0		0	
P1441	Aro EC5-EC7			2	0	1	<1	<1	<1	<1	1	10	0	0	0	0	Benzene wholly representative of this fraction
P1355	Aro >EC7-EC8			2	0	1	<1	<1	<1	<1	700	10	0	0	0	0	Toluene wholly representative of this fraction
P1356	Aro >EC8-EC10			2	0	1	<1	<1	<1	<1	300	10	0	0	0	0	Ethylbenzene / xylene / trimethylbenzene representative of this range
P1357	Aro >EC10-EC12			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Naphthalene often forms a reasonable percentage of this fraction
P1358	Aro >EC12-EC16			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	2-methylnaphthalene, acenaphthylene, acenaphthene falls within this fraction
P1359	Aro >EC16-EC21			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	fluorene, anthracene, phenanthrene, pyrene falls within this range
P1360	Aro >EC21-EC35			2	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(cd)pyrene fall within this fraction

Summary of Remedial Targets Methodology Screening

RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 400											<div></div> <div>PNEC calculated (inland EQS)</div>		<div>P = priority substance PH = priority hazardous substances WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
P1362	Aro >EC35-EC44			2	0	10	<10	<10	<10	<10	n/a	10	0	0	0	0		
71-43-2	Benzene	P	H	2	0	1	<1	<1	<1	<1	1	10	0	0	0	0		
108-88-3	Toluene	SP	H	2	0	1	<1	<1	<1	<1	700	74	0	0	0	0		
100-41-4	Ethylbenzene		H														Proposed EQS for Ethylbenzene in Water, R&D Technical Report P2-115/TR4, EA 2001	
95-47-6	o-Xylene		H	2	0	1	<1	<1	<1	<1	300	20	0	0	0	0	DWS/EQS for total xylene	
P1374	m,p-Xylene		H	2	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	2	0	1	<1	<1	<1	<1	15	n/a	0		0		Non health based value - WHO odour threshold	
71-55-6	1,1,1-Trichloroethane		NP	0							n/a	100						
79-00-5	1,1,2-Trichloroethane		NP	0							n/a	400						
96-12-8	1,2-Dibromo-3-chloropropane			0							0.1	n/a						
106-93-4	1,2-Dibromoethane		H	0							0.4	n/a						
95-50-1	1,2-Dichlorobenzene		H	0							1000	20						
107-06-2	1,2-Dichloroethane (EDC)	P	NP	0							3	10						
156-59-2	cis 1,2-Dichloroethene (cis 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
156-60-5	trans 1,2-Dichloroethene (trans 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
78-87-5	1,2-Dichloropropane		H	0							40	n/a						
10061-01-5	cis 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
10061-02-6	trans 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
106-46-7	1,4-Dichlorobenzene		H	0							300	20						
75-27-4	Bromodichloromethane			0							60	n/a						
75-01-4	Chloroethene (vinyl chloride)		H	0							0.5	n/a						
124-48-1	Dibromochloromethane			0							100	n/a						
25321-22-6	Dichlorobenzenes (1,2-, 1,3- & 1,4-)			0							n/a	20						
75-09-2	Dichloromethane	P	NP	0							20	20						
87-68-3	Hexachlorobutadiene (HCBD)	PH	H	0							0.1	0.6						
100-42-5	Styrene		H	0							20	50						
25322-20-7	Tetrachloroethane (PCA)	SP		0							n/a	140						
127-18-4	Tetrachloroethene (PCE)	OP	NP	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
GRP02	Tetrachloroethene (PCE) and trichloroethene (TCE)			0							10	n/a					UK DWS applies to sum of tetrachloroethene and trichloroethene	
56-23-5	Tetrachloromethane (Carbon Tetrachloride)	OP	H	0							3	12						
75-25-2	Tribromomethane (bromoform)			0							100	n/a						
12002-48-1	Trichlorobenzenes	P	NP	0							n/a	0.4						
79-01-6	Trichloroethene	OP	H	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
67-66-3	Trichloromethane (chloroform)	P	H	0							100	2.5						
GRP03	Trihalomethanes, sum of trichloromethane, tribromomethane, dibromochloromethane & bromodichloromethane			0							100	n/a						
88-06-2	2,4,6-Trichlorophenol		H	0							200	n/a						
120-83-2	2,4-Dichlorophenol	SP	H	0							n/a	4.2						
95-57-8	2-Chlorophenol		H	0							n/a	50						
554-00-7	3,4-Dichloroaniline	SP		0							n/a	0.2						
108-43-0	3-Chlorophenol		H	0							n/a	50						
59-50-7	4-Chloro, 3-methylphenol		H	0							n/a	40						
106-48-9	4-Chlorophenol		H	0							n/a	50						
85-68-7	Benzyl butyl phthalate	SP		0							n/a	7.5						
117-81-7	Di(2-ethylhexylphthalate) (DEHP)	PH	NP	0							8	1.3						
84-74-2	Dibutyl phthalate		NP	0							n/a	8						
84-66-2	Diethyl phthalate (DEP)			0							n/a	200						
131-11-3	Dimethyl phthalate (DMP)			0							n/a	800						
117-84-0	Diethyl phthalates			0							n/a	20						
118-74-1	Hexachlorobenzene	PH	H	0							0.1	0.05						
104-40-5	Nonylphenol (4-Nonylphenol)	PH		0							n/a	0.3						
140-66-9	Octylphenol ((4-(1,1', 3,3'-tetramethylbutyl)-phenol))	P		0							n/a	0.1						
608-93-5	Pentachlorobenzene	PH	H	0							n/a	0.007						
123-91-1	1,4-dioxane			0							50	n/a						
79-06-1	Acrylamide		H	0							0.1	n/a						
92-52-4	Biphenyl (cyclochlorocyclohexane)			0							n/a	25						

Summary of Remedial Targets Methodology Screening

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Water body receptor(s): Groundwater and surface water															
Secondary receptor(s):															
Data set: Groundwater															
Client: Portsmouth															
City Council															
Site: Dunsbury															
Park															
Job no: 19453-GELO															
Test Certificates(s): 21-10737,21-11194															
Dataset Unit 400															

CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
32534-81-9	Brominated diphenylethers (Sum congeners 28,47,99,100,153,154)	PH	H	0							n/a	0.14						
85535-84-8	Chloroalkanes C10-C13	PH	H	0							n/a	0.4						
25567-68-4	Chloronitrotoluenes		H	0							n/a	10						
3252-43-5	Dibromoacetatonitrile			0							70	n/a						
13425-80-4	Dichloroacetate			0							50	n/a						
3018-12-0	Dichloroacetatonitrile			0							20	n/a						
GRP04	Dioxins and dioxin-like compounds	PH		0							n/a	n/a						
3194-55-6	Hexabromocyclododecanes (HBCDD)	PH	H	0							n/a	0.0016						
2163-68-0	Hydroxyatrazine			0							200	n/a						
101043-37-2	Microcystin-LR			0							1	n/a						
62-75-9	N-nitrosodimethylamine			0							0.1	n/a						
1763-23-1	Perfluorooctane sulfonic acid (PFOS) & derivatives	PH	H	0							0.3	0.00065						DWS represents DWI (2009) Tier 2 action value (commence monitoring).
1336-36-3	Polychlorinated Biphenyls (PCB)		H	0							n/a	n/a						
2893-78-9	Sodium dichloroisoxyanurate			0							50000	n/a						
126-73-8	Tributyl phosphate		H	0							n/a	50						
3380-34-5	Triclosan	SP		0							n/a	0.1						
7726-95-6	Bromine (Br)			0							n/a	2						
7782-50-5	Chlorine (total free available)	SP	NP	0							200	2						
14866-68-3	Chlorate			0							700	n/a						
14998-27-7	Chlorite			0							700	n/a						
60-00-4	EDTA (edetic acid)			0							600	400						
106-89-8	Epichlorohydrin		H	0							0.1	n/a						
569-64-2	Malachite green		H	0							n/a	0.5						
10599-90-3	Monochloramine			0							3000	n/a						
79-11-8	Monochloroacetate (Chloroacetic Acid)			0							20	n/a						
139-13-9	NTA (nitrilotriacetic acid)			0							200	1000						
76-03-9	Trichloroethanoic acid (trichloroacetate)			0							200	n/a						
7440-61-1	U (dissolved)			0							30	n/a						
36643-28-4	Tributyl tin compounds	PH	H	0							n/a	0.0002						
7783-06-4	Hydrogen Sulphide			0							n/a	0.25						
14797-73-0	Perchlorate			0							70	n/a						
GRP06	Total anions			0							n/a	250000						
93-76-5	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)		H	0							0.1	n/a						
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)	SP		0							0.1	0.3						
94-82-6	2,4-DB (4-(2,4-dichlorophenoxy butyric acid)			0							0.1	n/a						
71751-41-2	Abamectin			0							0.1	0.01						
74070-46-5	Acinofen	P		0							0.1	0.12						
15972-60-8	Alachlor	P	H	0							0.1	0.3						
116-06-3	Aldicarb		NP	0							0.1	n/a						
309-00-2	Aldrin		H	0							0.03	n/a						
GRP07	Aldrin & dieldrin		H	0							0.03	n/a						
1912-24-9	Atrazine	P	H	0							0.1	0.6						
35575-96-3	Azamethiphos			0							0.1	n/a						
2642-71-9	Azinphos ethyl		H	0							0.1	n/a						
86-50-0	Azinphos-methyl		H	0							0.1	0.01						
25057-89-0	Bentazone		NP	0							0.1	500						
42576-02-3	Bifenox	P	H	0							0.1	0.012						
1689-84-5	Bromoxynil		H	0							0.1	100						
10605-21-7	Carbendazim	SP	H	0							0.1	0.15						
1563-66-2	Carbofuran		NP	0							0.1	n/a						
57-74-9	Chlordane		H	0							0.1	n/a						
470-90-6	Chlorofenvinphos	P	H	0							0.1	0.1						
101-21-3	Chloroproprham		H	0							0.1	10						
2921-88-2	Chloropyrifos	P	H	0							0.1	0.03						
1897-45-6	Chlorothalonil	SP	H	0							0.1	0.035						
15545-48-9	Chlorotoluron		H	0							0.1	2						
GRP08	Cyclodiene pesticides, sum of Aldrin, Dieldrin, Endrin, Isodrin	OP	H	0							0.03	0.01						
56-72-4	Coumaphos		H	0							0.1	0.01						

Summary of Remedial Targets Methodology Screening

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21725-46-2	Cyanazine		H	0							0.1	n/a					
28159-98-0	Cybutryne	P		0							0.1	0.0025					
68359-37-5	Cyfluthrin			0							0.1	0.001					
52315-07-8	Cypermethrin	P	H	0							0.1	0.00008					
GRP09	DDT total (dichlorodiphenyltrichloroethane)	OP	H														
				0							0.1	0.025					
8065-48-3	Demeton		H	0							0.1	0.5					
333-41-5	Diazinon (sheep dip)	SP	H	0							0.1	0.01					
120-36-5	Dichloroprop		H	0							0.1	n/a					
62-73-7	Dichlorvos	P	H	0							0.1	0.0006					
115-32-2	Dicofol	PH	H	0							0.1	0.0013					
60-57-1	Dieldrin		H	0							0.03	n/a					
35367-38-5	Diffubenzuron		H	0							0.1	0.001					
60-51-5	Dimethoate	SP	H	0							0.1	0.48					
330-54-1	Diuron	P	H	0							0.1	0.2					
117704-25-3	Doramectin			0							n/a	0.001					
115-29-7	Endosulfan	PH	H	0							0.1	0.005					
72-20-8	Endrin		H	0							0.1	n/a					
299-84-3	Fenchlorphos		H	0							0.1	0.03					
122-14-5	Fenitrothion		H	0							0.1	0.01					
93-72-1	Fenoprop ((2,4,5-trichlorophenoxy)propionic acid)		H														
				0							0.1	n/a					
55-38-9	Fenthion		H	0							0.1	n/a					
370-50-3	Flucifuron			0							0.1	1					
50-00-0	Formaldehyde (methanal)		NP	0							0.1	5					
38641-94-0	Glyphosate	SP		0							0.1	196					
76-44-8	Heptachlor		H	0							0.03	2E-07					
GRP10	Heptachlor & Heptachlor epoxide	PH	H														
				0							0.03	2E-07					
1024-57-3	Heptachlor epoxide			0							0.03	2E-07					
608-73-1	Hexachlorocyclohexane (includes lindane)	PH	H	0							0.1	0.02					
1689-83-4	Ioxynil		H	0							0.1	10					
465-73-6	Isodrin		H	0							0.1	n/a					
34123-69-6	Isoproturon	P	NP	0							0.1	0.3					
70288-86-7	Ivermectin			0							n/a	0.0001					
330-55-2	Linuron	SP	H	0							0.1	0.5					
121-75-5	Malathion		H	0							0.1	0.01					
8018-01-07	Mancozeb		NP	0							0.1	2					
12427-38-2	Maneb		NP	0							0.1	3					
94-74-6	MCPA (4-(2-methyl-4-chlorophenoxy acetic acid))			0							0.1	12					EQS inland dependant on pH. Default 12µg/l as conservative approach
93-65-2	Mecoprop	SP	NP	0							0.1	18					
2032-65-7	Methiocarb	SP	NP	0							0.1	0.01					
72-43-5	Methoxychlor			0							0.1	n/a					
51218-45-2	Metolachlor			0							0.1	n/a					
7786-34-7	Mevinphos		H	0							0.1	0.02					
2212-67-1	Molinate			0							0.1	n/a					
1113-02-6	Omethoate		H	0							0.1	0.01					
50-29-3	para-para-DDT	OP	H	0							0.1	0.01					
56-38-2	Parathion		H	0							0.1	n/a					
298-00-0	Parathion-methyl		H	0							0.1	n/a					
GRP11	PCSDs (cyfluthrin, sulcoturon, flucifuron and permethrin)			0							n/a	0.05					
40487-42-1	Pendimethalin	SP	NP	0							0.1	0.3					
87-86-5	Pentachlorophenol	P	H	0							0.1	0.4					
52645-53-1	Permethrin	SP	H	0							0.1	0.001					
GRP12	Pesticides (individual) (other than aldrin, dieldrin, heptachlor & heptachlor epoxide)			0							0.1	n/a					
GRP13	Pesticides (total)			0							0.5	n/a					
23103-98-2	Pirimicarb		NP	0							0.1	1					
29232-93-7	Pirimiphos - methyl		H	0							0.1	0.015					
67747-09-5	Prochloraz		H	0							0.1	4					
31218-83-4	Propetamphos		H	0							0.1	0.03					
23950-58-5	Propyzamide		H	0							0.1	100					
95737-68-1	Pyriproxyfen			0							0.1	n/a					

Summary of Remedial Targets Methodology Screening



<div>RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples</div> <div>Water body receptor(s): Groundwater and surface water</div> <div>Secondary receptor(s):<div><div>Data set: Groundwater</div><div>Client: Portsmouth</div><div>City Council</div><div>Site: Dunsbury</div><div>Park</div><div>Job no: 19453-GELO</div></div></div> <div>Test Certificates(s): 21-10737,21-11194</div> <div>Dataset Unit 400</div>										<div><div></div><div>PNEC calculated (inland EQS)</div></div>		<div>P = priority substance</div> <div>PH = priority hazardous substances</div> <div>WFD Designation (2015 Directions)</div> <div>OP = Other substance identical to previous legislation</div> <div>SP = Specific Pollutant</div> <div>JAGDAG Hazardous Substances Determination (UK)</div> <div>H Hazardous substance</div> <div>NP Non-hazardous pollutant</div> <div>(blank) Not included in assessment</div>									
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes				
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS					
124495-18-7	Quinoxifen	PH		0							0.1	0.15									
122-34-9	Simazine	P	H	0							0.1	1									
3567-25-7	Sulcofuron			0							0.1	25									
117-18-0	Tecnazene (total)			0							0.1	1									
886-50-0	Tertbutryn	P	NP	0							0.1	0.065									
5915-41-3	Tertbutylazine		H	0							0.1	n/a									
148-79-8	Thiabendazole		NP	0							0.1	5									
2303-17-5	Triallate		H	0							0.1	0.25									
24017-47-8	Triazaphos		H	0							0.1	0.005									
1582-09-8	Trifluralin	PH	H	0							0.1	0.03									
1262-21-1	Triphenyltin and derivatives		H	0							0.1	0.02									

Summary of Remedial Targets Methodology Screening

Hydrock Scenario: Scenario D - DWS & EQS (inland)										2013/39/EU Annex I	
RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples										P = priority substance	
Water body receptor(s): Groundwater and surface water										PH = priority hazardous substances.	
Secondary receptor(s):										WFD Designation (2015 Directions)	
Data set: Groundwater										OP = Other substance identical to previous legislation	
Client: Portsmouth										SP = Specific Pollutant	
City Council											
Site: Dunsbury											
Park											
Job no: 19453-GELO											
Test Certificates(s): 21-10737,21-11194										JAGDAG Hazardous Substances Determination (UK)	
Dataset Unit 600										H Hazardous substance	
										NP Non-hazardous pollutant	
										(blank) Not included in assessment	

CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
P1133	Hardness as mg/l CaCO ₃			-	-	-	10	-	-	-	-						EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
7440-22-4	Silver (Ag) (dissolved)			4	0	0.05	<0.05	<0.05	<0.05	n/a	0.05			0		0	Representative hardness of receiving surface water environment used in some inland EQS
7429-90-5	Aluminium (Al) (dissolved)			4	4	1	1.9	5.4	5.04	200	n/a	0		0		0	
7440-38-2	Arsenic (As) (dissolved)	SP	H	4	4	0.15	0.76	2.55	2.5335	10	50	0	0	0	0	0	
7440-42-8	Boron (B) (dissolved)		NP	4	4	10	33	660	577.5	1000	2000	0	0	0	0	0	
7440-39-3	Barium (Ba) (dissolved)			4	4	0.06	17	44	42.5	1300	n/a	0	0	0	0	0	
7440-43-9	Cadmium (Cd) (dissolved)	PH	NP	4	0	0.02	<0.02	<0.02	<0.02	5	0.08	0	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
7440-48-4	Cobalt (Co) (dissolved)		NP	4	4	0.2	0.3	3.8	3.29	n/a	3		1		1	1	
18540-29-9	Chromium (VI) (Cr) (dissolved)	SP	H	4	0	5	<5	<5	<5	n/a	3.4		4		0	0	
16065-83-1	Chromium (III) (Cr) (dissolved)	SP		4	4	1	2	3.6	3.405	n/a	4.7		0		0	0	
7440-47-3	Chromium (Cr) (total) (dissolved)			4	4	0.2	2	3.6	3.405	50	n/a	0		0		0	
7440-50-8	Copper (Cu) (dissolved)	SP	NP	4	4	0.5	0.8	4.8	4.545	2000	1	0	2	0	2	2	Bioavailable EQS (inland)
7439-89-6	Iron (Fe) (dissolved)	SP		4	4	4	16	130	128.5	200	1000	0	0	0	0	0	
7439-97-6	Mercury (Hg) (dissolved)	PH	H	4	0	0.05	<0.05	<0.05	<0.05	1	0.07	0	0	0	0	0	
P1286	Manganese (Mn) (dissolved)	SP		4	4	0.05	40	310	301	50	123	3	3	3	3	3	Bioavailable EQS (inland)
7440-23-5	Sodium (Na) (dissolved)			4	4	0.01	23	270	244.2	200000	n/a	0	0	0	0	0	
7440-02-0	Nickel (Ni) (dissolved)	P	NP	4	4	0.5	1	6.1	5.38	20	4	0	1	0	1	1	Bioavailable EQS (inland)
7439-92-1	Lead (Pb) (dissolved)	P	H	4	0	0.2	<0.2	<0.2	<0.2	10	1.2	0	0	0	0	0	Bioavailable EQS (inland)
7440-36-0	Antimony (Sb) (dissolved)		NP	4	3	0.4	<0.4	0.7	0.685	5	n/a	0	0	0	0	0	
7782-49-2	Selenium (Se) (dissolved)		NP	4	2	0.6	<0.6	2.6	2.345	10	n/a	0	0	0	0	0	
7440-31-5	Tin (Sn) (dissolved)			4	3	0.2	<0.2	0.5	0.497	n/a	25		0	0	0	0	
7440-62-2	Vanadium (V) (dissolved)			4	4	0.2	0.3	1.6	1.54	n/a	20		0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
7440-66-6	Zinc (Zn) (dissolved)	SP	NP	4	4	0.5	1.7	4.3	4.045	n/a	12.3		0	0	0	0	Bioavailable EQS (inland) + ambient background concentration (ABC)
P1095	Cyanide (free) (hydrogen cyanide)	SP	NP	4	0	1	<1	<1	<1	n/a	1		0	0	0	0	
57-12-5	Cyanide (total)			4	0	1	<1	<1	<1	50	n/a	0	0	0	0	0	
P1140	Ammonium (NH ₄ ⁺)		NP	4	3	15	<15	140	137	500	n/a	0	0	0	0	0	
P1238	Ammoniacal Nitrogen (as N)		NP	4	3	15	<15	110	107.6	n/a	300		0	0	0	0	
P1720	Ammonia (unionised) (NH ₃ as N) (free ammonia)	SP	NP	4	3	15	<15	130	127	n/a	n/a	0	0	0	0	0	
15541-45-4	Bromate (BrO ₃ ⁻)			4	0	0.002	<0.002	<0.002	<0.002	10	n/a	0	0	0	0	0	
16887-00-6	Chloride (Cl ⁻)			4	4	0.15	23	400	344.95	400	250000	250000	0	0	0	0	
16984-48-8	Fluoride (F ⁻)			4	4	50	140	410	405.5	1500	1000	0	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
P1348	Nitrate (NO ₃ ⁻)			4	4	0.05	0.26	1.39	1.36	50000	n/a	0	0	0	0	0	
P1349	Nitrite (NO ₂ ⁻)			4	1	5	<5	19	16.9	500	n/a	0	0	0	0	0	
14808-79-8	Sulfate (SO ₄ ²⁻) (su)			4	4	45	37900	184000	168655	250000	400000	0	0	0	0	0	
P1134	pH (min.) (su)			4	4	0	7.5	7.8	7.8	6.5	6	0	0	0	0	0	
P1134	pH (max.) (su)			4	4	0	7.5	7.8	7.8	9.5	9	0	0	0	0	0	
P1287	Electrical conductivity (µS/cm)			2	2	10	510	1900	1830.5	2500	n/a	0	0	0	0	0	
120-12-7	Anthracene	PH	H	4	0	0.01	<0.01	<0.01	<0.01	n/a	0.1		0	0	0	0	
50-32-8	Benzo(a)pyrene	PH	H	4	0	0.01	<0.01	<0.01	<0.01	0.01	0.00017	0	4	0	0	0	Benzo(a)pyrene EQS used as marker substance for the group of benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene & indeno (1,2,3-cd)pyrene
206-44-0	Fluoranthene	P	H	4	0	0.01	<0.01	<0.01	<0.01	n/a	0.0063		4	0	0	0	
91-20-3	Naphthalene	P	NP	4	0	0.01	<0.01	<0.01	<0.01	n/a	2		0	0	0	0	
GRP01	PAHs = sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene	P	H	4	4	0.01	0.04	0.04	0.04	0.1	n/a	0		0		0	
P1877	Phenol	SP	NP	4	0	1	<1	<1	<1	n/a	7.7		0	0	0	0	
P1407	Ali >EC5-EC6			4	0	1	<1	<1	<1	15000	10	0	0	0	0	0	n-hexane fall within this fraction
P1408	Ali >EC6-EC8			4	0	1	<1	<1	<1	15000	10	0	0	0	0	0	n-heptane falls within this fraction
P1409	Ali >EC8-EC10			4	0	1	<1	<1	<1	300	10	0	0	0	0	0	n-octane and n-nonane fall within this fraction
P1410	Ali >EC10-EC12			4	0	10	<10	<10	<10	300	10	0	0	0	0	0	
P1411	Ali >EC12-EC16			4	0	10	<10	<10	<10	300	10	0	0	0	0	0	
P1938	Ali >EC16-EC35			4	0	10	<10	<10	<10	n/a	10		0	0	0	0	
P1415	Ali >EC35-EC44			4	0	10	<10	<10	<10	n/a	10		0	0	0	0	
P1441	Aro EC5-EC7			4	0	1	<1	<1	<1	1	10	0	0	0	0	0	Benzene wholly representative of this fraction
P1355	Aro >EC7-EC8			4	0	1	<1	<1	<1	700	10	0	0	0	0	0	Toluene wholly representative of this fraction
P1356	Aro >EC8-EC10			4	0	1	<1	<1	<1	300	10	0	0	0	0	0	Ethylbenzene / xylene / trimethylbenzene representative of this range
P1357	Aro >EC10-EC12			4	0	10	<10	<10	<10	90	10	0	0	0	0	0	Naphthalene often forms a reasonable percentage of this fraction
P1358	Aro >EC12-EC16			4	0	10	<10	<10	<10	90	10	0	0	0	0	0	2-methylnaphthalene, acenaphthylene, acenaphthene falls within this fraction
P1359	Aro >EC16-EC21			4	0	10	<10	<10	<10	90	10	0	0	0	0	0	fluorene, anthracene, phenanthrene, pyrene falls within this range
P1360	Aro >EC21-EC35			4	0	10	<10	<10	<10	90	10	0	0	0	0	0	Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(cd)pyrene fall within this fraction

Summary of Remedial Targets Methodology Screening

RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 600											<div></div> <div>PNEC calculated (inland EQS)</div>		<div>P = priority substance PH = priority hazardous substances WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
P1362	Aro >EC35-EC44			4	0	10	<10	<10	<10	<10	n/a	10	0	0	0	0		
71-43-2	Benzene	P	H	4	0	1	<1	<1	<1	<1	1	10	0	0	0	0		
108-88-3	Toluene	SP	H	4	0	1	<1	<1	<1	<1	700	74	0	0	0	0		
100-41-4	Ethylbenzene		H	4	0	1	<1	<1	<1	<1	300	20	0	0	0	0	Proposed EQS for Ethylbenzene in Water, R&D Technical Report P2-115/TR4, EA 2001	
95-47-6	o-Xylene		H	4	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
P1374	m,p-Xylene		H	4	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	4	0	1	<1	<1	<1	<1	15	n/a	0		0		Non health based value - WHO odour threshold	
71-55-6	1,1,1-Trichloroethane		NP	0							n/a	100						
79-00-5	1,1,2-Trichloroethane		NP	0							n/a	400						
96-12-8	1,2-Dibromo-3-chloropropane			0							0.1	n/a						
106-93-4	1,2-Dibromoethane		H	0							0.4	n/a						
95-50-1	1,2-Dichlorobenzene		H	0							1000	20						
107-06-2	1,2-Dichloroethane (EDC)	P	NP	0							3	10						
156-59-2	cis 1,2-Dichloroethene (cis 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
156-60-5	trans 1,2-Dichloroethene (trans 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
78-87-5	1,2-Dichloropropane		H	0							40	n/a						
10061-01-5	cis 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
10061-02-6	trans 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
106-46-7	1,4-Dichlorobenzene		H	0							300	20						
75-27-4	Bromodichloromethane			0							60	n/a						
75-01-4	Chloroethene (vinyl chloride)		H	0							0.5	n/a						
124-48-1	Dibromochloromethane			0							100	n/a						
25321-22-6	Dichlorobenzenes (1,2-, 1,3- & 1,4-)			0							n/a	20						
75-09-2	Dichloromethane	P	NP	0							20	20						
87-68-3	Hexachlorobutadiene (HCBD)	PH	H	0							0.1	0.6						
100-42-5	Styrene		H	0							20	50						
25322-20-7	Tetrachloroethane (PCA)	SP		0							n/a	140						
127-18-4	Tetrachloroethene (PCE)	OP	NP	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
GRP02	Tetrachloroethene (PCE) and trichloroethene (TCE)			0							10	n/a					UK DWS applies to sum of tetrachloroethene and trichloroethene	
56-23-5	Tetrachloromethane (Carbon Tetrachloride)	OP	H	0							3	12						
75-25-2	Tribromomethane (bromoform)			0							100	n/a						
12002-48-1	Trichlorobenzenes	P	NP	0							n/a	0.4						
79-01-6	Trichloroethene	OP	H	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
67-66-3	Trichloromethane (chloroform)	P	H	0							100	2.5						
GRP03	Trihalomethanes, sum of trichloromethane, tribromomethane, dibromochloromethane & bromodichloromethane			0							100	n/a						
88-06-2	2,4,6-Trichlorophenol		H	0							200	n/a						
120-83-2	2,4-Dichlorophenol	SP	H	0							n/a	4.2						
95-57-8	2-Chlorophenol		H	0							n/a	50						
554-00-7	3,4-Dichloroaniline	SP		0							n/a	0.2						
108-43-0	3-Chlorophenol		H	0							n/a	50						
59-50-7	4-Chloro, 3-methylphenol		H	0							n/a	40						
106-48-9	4-Chlorophenol		H	0							n/a	50						
85-68-7	Benzyl butyl phthalate	SP		0							n/a	7.5						
117-81-7	Di(2-ethylhexylphthalate) (DEHP)	PH	NP	0							8	1.3						
84-74-2	Dibutyl phthalate		NP	0							n/a	8						
84-66-2	Diethyl phthalate (DEP)			0							n/a	200						
131-11-3	Dimethyl phthalate (DMP)			0							n/a	800						
117-84-0	Diethyl phthalates			0							n/a	20						
118-74-1	Hexachlorobenzene	PH	H	0							0.1	0.05						
104-40-5	Nonylphenol (4-Nonylphenol)	PH		0							n/a	0.3						
140-66-9	Octylphenol ((4-(1,1', 3,3'-tetramethylbutyl)-phenol))	P		0							n/a	0.1						
608-93-5	Pentachlorobenzene	PH	H	0							n/a	0.007						
123-91-1	1,4-dioxane			0							50	n/a						
79-06-1	Acrylamide		H	0							0.1	n/a						
92-52-4	Biphenyl (cyclochlorocyclohexane)			0							n/a	25						

Summary of Remedial Targets Methodology Screening

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CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
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32534-81-9	Brominated diphenylethers (Sum congeners 28,47,99,100,153,154)	PH	H	0							n/a	0.14						
85535-84-8	Chloroalkanes C10-C13	PH	H	0							n/a	0.4						
25567-68-4	Chloronitrotoluenes		H	0							n/a	10						
3252-43-5	Dibromoacetone			0							70	n/a						
13425-80-4	Dichloroacetate			0							50	n/a						
3018-12-0	Dichloroacetonitrile			0							20	n/a						
GRP04	Dioxins and dioxin-like compounds	PH		0							n/a	n/a						
3194-55-6	Hexabromocyclododecanes (HBCDD)	PH	H	0							n/a	0.0016						
2163-68-0	Hydroxyatrazine			0							200	n/a						
101043-37-2	Microcystin-LR			0							1	n/a						
62-75-9	N-nitrosodimethylamine			0							0.1	n/a						
1763-23-1	Perfluorooctane sulfonic acid (PFOS) & derivatives	PH	H	0							0.3	0.00065						DWS represents DWI (2009) Tier 2 action value (commence monitoring).
1336-36-3	Polychlorinated Biphenyls (PCB)		H	0							n/a	n/a						
2893-78-9	Sodium dichloroisoxyanurate			0							50000	n/a						
126-73-8	Tributyl phosphate		H	0							n/a	50						
3380-34-5	Triclosan	SP		0							n/a	0.1						
7726-95-6	Bromine (Br)			0							n/a	2						
7782-50-5	Chlorine (total free available)	SP	NP	0							200	2						
14866-68-3	Chlorate			0							700	n/a						
14998-27-7	Chlorite			0							700	n/a						
60-00-4	EDTA (edetic acid)			0							600	400						
106-89-8	Epichlorohydrin		H	0							0.1	n/a						
569-64-2	Malachite green		H	0							n/a	0.5						
10599-90-3	Monochloramine			0							3000	n/a						
79-11-8	Monochloroacetate (Chloroacetic Acid)			0							20	n/a						
139-13-9	NTA (nitrilotriacetic acid)			0							200	1000						
76-03-9	Trichloroethanoic acid (trichloroacetate)			0							200	n/a						
7440-61-1	U (dissolved)			0							30	n/a						
36643-28-4	Tributyl tin compounds	PH	H	0							n/a	0.0002						
7783-06-4	Hydrogen Sulphide			0							n/a	0.25						
14797-73-0	Perchlorate			0							70	n/a						
GRP06	Total anions			0							n/a	250000						
93-76-5	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)		H	0							0.1	n/a						
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)	SP		0							0.1	0.3						
94-82-6	2,4-DB (4-(2,4-dichlorophenoxy)butyric acid)			0							0.1	n/a						
71751-41-2	Abamectin			0							0.1	0.01						
74070-46-5	Acinofen	P		0							0.1	0.12						
15972-60-8	Alachlor	P	H	0							0.1	0.3						
116-06-3	Aldicarb		NP	0							0.1	n/a						
309-00-2	Aldrin		H	0							0.03	n/a						
GRP07	Aldrin & dieldrin		H	0							0.03	n/a						
1912-24-9	Atrazine	P	H	0							0.1	0.6						
35575-96-3	Azamethiphos			0							0.1	n/a						
2642-71-9	Azinphos ethyl		H	0							0.1	n/a						
86-50-0	Azinphos-methyl		H	0							0.1	0.01						
25057-89-0	Bentazone		NP	0							0.1	500						
42576-02-3	Bifenox	P	H	0							0.1	0.012						
1689-84-5	Bromoxynil		H	0							0.1	100						
10605-21-7	Carbendazim	SP	H	0							0.1	0.15						
1563-66-2	Carbofuran		NP	0							0.1	n/a						
57-74-9	Chlordane		H	0							0.1	n/a						
470-90-6	Chlorofenvinphos	P	H	0							0.1	0.1						
101-21-3	Chloroproprham		H	0							0.1	10						
2921-88-2	Chloropyrifos	P	H	0							0.1	0.03						
1897-45-6	Chlorothalonil	SP	H	0							0.1	0.035						
15545-48-9	Chlorotoluron		H	0							0.1	2						
GRP08	Cyclodiene pesticides, sum of Aldrin, Dieldrin, Endrin, Isodrin	OP	H	0							0.03	0.01						
56-72-4	Coumaphos		H	0							0.1	0.01						

Summary of Remedial Targets Methodology Screening

RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 600										<div><div></div><div>PNEC calculated (inland EQS)</div></div>		<div>P = priority substance PH = priority hazardous substances WFD Designation (2015 Directions) OP = Other substance identical to previous legislation SP = Specific Pollutant JAGDAG Hazardous Substances Determination (UK) H Hazardous substance NP Non-hazardous pollutant (blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
21725-46-2	Cyanazine		H	0							0.1	n/a					
28159-98-0	Cybutryne	P		0							0.1	0.0025					
68359-37-5	Cyfluthrin			0							0.1	0.001					
52315-07-8	Cypermethrin	P	H	0							0.1	0.00008					
GRP09	DDT total (dichlorodiphenyltrichloroethane)	OP	H														
				0							0.1	0.025					
8065-48-3	Demeton		H	0							0.1	0.5					
333-41-5	Diazinon (sheep dip)	SP	H	0							0.1	0.01					
120-36-5	Dichloroprop		H	0							0.1	n/a					
62-73-7	Dichlorvos	P	H	0							0.1	0.0006					
115-32-2	Dicofol	PH	H	0							0.1	0.0013					
60-57-1	Dieldrin		H	0							0.03	n/a					
35367-38-5	Diffubenzuron		H	0							0.1	0.001					
60-51-5	Dimethoate	SP	H	0							0.1	0.48					
330-54-1	Diuron	P	H	0							0.1	0.2					
117704-25-3	Doramectin			0							n/a	0.001					
115-29-7	Endosulfan	PH	H	0							0.1	0.005					
72-20-8	Endrin		H	0							0.1	n/a					
299-84-3	Fenchlorphos		H	0							0.1	0.03					
122-14-5	Fenitrothion		H	0							0.1	0.01					
93-72-1	Fenoprop ((2,4,5-trichlorophenoxy)propionic acid)		H														
				0							0.1	n/a					
55-38-9	Fenthion		H	0							0.1	n/a					
370-50-3	Flucifuron			0							0.1	1					
50-00-0	Formaldehyde (methanal)		NP	0							0.1	5					
38641-94-0	Glyphosate	SP		0							0.1	196					
76-44-8	Heptachlor		H	0							0.03	2E-07					
GRP10	Heptachlor & Heptachlor epoxide	PH	H														
				0							0.03	2E-07					
1024-57-3	Heptachlor epoxide			0							0.03	2E-07					
608-73-1	Hexachlorocyclohexane (includes lindane)	PH	H	0							0.1	0.02					
1689-83-4	Ioxynil		H	0							0.1	10					
465-73-6	Isodrin		H	0							0.1	n/a					
34123-69-6	Isoproturon	P	NP	0							0.1	0.3					
70288-86-7	Ivermectin			0							n/a	0.0001					
330-55-2	Linuron	SP	H	0							0.1	0.5					
121-75-5	Malathion		H	0							0.1	0.01					
8018-01-07	Mancozeb		NP	0							0.1	2					
12427-38-2	Maneb		NP	0							0.1	3					
94-74-6	MCPA (4-(2-methyl-4-chlorophenoxy acetic acid))			0							0.1	12					EQS inland dependant on pH. Default 12µg/l as conservative approach
93-65-2	Mecoprop	SP	NP	0							0.1	18					
2032-65-7	Methiocarb	SP	NP	0							0.1	0.01					
72-43-5	Methoxychlor			0							0.1	n/a					
51218-45-2	Metolachlor			0							0.1	n/a					
7786-34-7	Mevinphos		H	0							0.1	0.02					
2212-67-1	Molinate			0							0.1	n/a					
1113-02-6	Omethoate		H	0							0.1	0.01					
50-29-3	para-para-DDT	OP	H	0							0.1	0.01					
56-38-2	Parathion		H	0							0.1	n/a					
298-00-0	Parathion-methyl		H	0							0.1	n/a					
GRP11	PCSDs (cyfluthrin, sulcufuron, flucifuron and permethrin)			0							n/a	0.05					
40487-42-1	Pendimethalin	SP	NP	0							0.1	0.3					
87-86-5	Pentachlorophenol	P	H	0							0.1	0.4					
52645-53-1	Permethrin	SP	H	0							0.1	0.001					
GRP12	Pesticides (individual) (other than aldrin, dieldrin, heptachlor & heptachlor epoxide)			0							0.1	n/a					
GRP13	Pesticides (total)			0							0.5	n/a					
23103-98-2	Pirimicarb		NP	0							0.1	1					
29232-93-7	Pirimiphos - methyl		H	0							0.1	0.015					
67747-09-5	Prochloraz		H	0							0.1	4					
31218-83-4	Propetamphos		H	0							0.1	0.03					
23950-58-5	Propyzamide		H	0							0.1	100					
95737-68-1	Pyriproxyfen			0							0.1	n/a					

Summary of Remedial Targets Methodology Screening



<div>RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples</div> <div>Water body receptor(s): Groundwater and surface water</div> <div>Secondary receptor(s):<div><div>Data set: Groundwater</div><div>Client: Portsmouth</div><div>City Council</div><div>Site: Dunsbury</div><div>Park</div><div>Job no: 19453-GELO</div></div></div> <div>Test Certificates(s): 21-10737,21-11194</div> <div>Dataset Unit 600</div>										<div><div></div><div>PNEC calculated (inland EQS)</div></div>		<div>P = priority substance</div> <div>PH = priority hazardous substances</div> <div>WFD Designation (2015 Directions)</div> <div>OP = Other substance identical to previous legislation</div> <div>SP = Specific Pollutant</div> <div>JAGDAG Hazardous Substances Determination (UK)</div> <div>H Hazardous substance</div> <div>NP Non-hazardous pollutant</div> <div>(blank) Not included in assessment</div>					
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
124495-18-7	Quinoxifen	PH		0							0.1	0.15					EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
122-34-9	Simazine	P	H	0							0.1	1					
3567-25-7	Sulcofuron			0							0.1	25					
117-18-0	Tecnazene (total)			0							0.1	1					
886-50-0	Tertbutryn	P	NP	0							0.1	0.065					
5915-41-3	Tertbutylazine		H	0							0.1	n/a					
148-79-8	Thiabendazole		NP	0							0.1	5					
2303-17-5	Triallate		H	0							0.1	0.25					
24017-47-8	Triazaphos		H	0							0.1	0.005					
1582-09-8	Trifluralin	PH	H	0							0.1	0.03					
1262-21-1	Triphenyltin and derivatives		H	0							0.1	0.02					

Summary of Remedial Targets Methodology Screening

Hydrock Scenario: Scenario D - DWS & EQS (inland)										2013/39/EU Annex I	
RTM Level: RTM Level 2 - Groundwater Beneath Source Assessment - groundwater samples										P = priority substance	
Water body receptor(s): Groundwater and surface water										PH = priority hazardous substances.	
Secondary receptor(s):										WFD Designation (2015 Directions)	
Data set: Groundwater										OP = Other substance identical to previous legislation	
Client: Portsmouth										SP = Specific Pollutant	
City Council											
Site: Dunsbury											
Park											
Job no: 19453-GELO											
Test Certificates(s): 21-10737,21-11194										JAGDAG Hazardous Substances Determination (UK)	
Dataset Unit 700										H Hazardous substance	
										NP Non-hazardous pollutant	
										(blank) Not included in assessment	

CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data					Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value		95%-ile Value	DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS		Inland Waters EQS
P1133	Hardness as mg/l CaCO ₃			-	-	-	10	-	-	-	-	-					EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
7440-22-4	Silver (Ag) (dissolved)			4	0	0.05	<0.05	<0.05	<0.05	n/a	0.05		0		0		Representative hardness of receiving surface water environment used in some inland EQS
7429-90-5	Aluminium (Al) (dissolved)			4	4	1	3.6	43	38.35	43	200	n/a	0		0		
7440-38-2	Arsenic (As) (dissolved)	SP	H	4	4	0.15	0.33	2.16	1.9425	2.16	10	50	0	0	0	0	
7440-42-8	Boron (B) (dissolved)		NP	4	4	10	42	710	617.6	710	1000	2000	0	0	0	0	
7440-39-3	Barium (Ba) (dissolved)			4	4	0.06	15	51	49.5	51	1300	n/a	0		0		
7440-43-9	Cadmium (Cd) (dissolved)	PH	NP	4	1	0.02	<0.02	0.16	0.139	0.16	5	0.08	0	1	0	1	EQS (inland) dependent on hardness of receiving surface water environment
7440-48-4	Cobalt (Co) (dissolved)		NP	4	4	0.2	0.6	10	9.16	10	n/a	3	2	2	2	2	
18540-29-9	Chromium (VI) (Cr) (dissolved)	SP	H	4	0	5	<5	<5	<5	<5	n/a	3.4	4			0	
16065-83-1	Chromium (III) (Cr) (dissolved)	SP		4	4	1	3.5	9.7	8.905	9.7	n/a	4.7	1		1	1	
7440-47-3	Chromium (Cr) (total) (dissolved)			4	4	0.2	3.5	9.7	8.905	9.7	50	n/a	0		0		
7440-50-8	Copper (Cu) (dissolved)	SP	NP	4	4	0.5	1.5	6.6	6.255	6.6	2000	1	0	4	0	4	Bioavailable EQS (inland)
7439-89-6	Iron (Fe) (dissolved)	SP		4	4	4	5.8	340	290.65	340	200	1000	1	0	1	0	
7439-97-6	Mercury (Hg) (dissolved)	PH	H	4	0	0.05	<0.05	<0.05	<0.05	<0.05	1	0.07	0	0	0	0	
P1286	Manganese (Mn) (dissolved)	SP		4	4	0.05	49	390	358.5	390	50	123	3	3	3	3	Bioavailable EQS (inland)
7440-23-5	Sodium (Na) (dissolved)			4	4	0.01	13	390	335.25	390	200000	n/a	0		0		
7440-02-0	Nickel (Ni) (dissolved)	P	NP	4	4	0.5	3.3	24	21.885	24	20	4	1	3	1	3	Bioavailable EQS (inland)
7439-92-1	Lead (Pb) (dissolved)	P	H	4	0	0.2	<0.2	<0.2	<0.2	<0.2	10	1.2	0	0	0	0	Bioavailable EQS (inland)
7440-36-0	Antimony (Sb) (dissolved)		NP	4	4	0.4	0.5	0.8	0.785	0.8	5	n/a	0		0		
7782-49-2	Selenium (Se) (dissolved)		NP	4	4	0.6	0.8	21	18.105	21	10	n/a	1		1		
7440-31-5	Tin (Sn) (dissolved)			4	3	0.2	<0.2	0.71	0.656	0.71	n/a	25		0		0	
7440-62-2	Vanadium (V) (dissolved)			4	2	0.2	<0.2	1.2	1.14	1.2	n/a	20		0		0	EQS (inland) dependent on hardness of receiving surface water environment
7440-66-6	Zinc (Zn) (dissolved)	SP	NP	4	4	0.5	3	31	27.67	31	n/a	12.3	1		1	1	Bioavailable EQS (inland) + ambient background concentration (ABC)
P1095	Cyanide (free) (hydrogen cyanide)	SP	NP	4	0	1	<1	<1	<1	<1	n/a	1		0		0	
57-12-5	Cyanide (total)			4	0	1	<1	<1	<1	<1	50	n/a	0		0		
P1140	Ammonium (NH ₄ ⁺)		NP	4	4	15	39	140	134	140	500	n/a	0		0		
P1238	Ammoniacal Nitrogen (as N)		NP	4	4	15	31	110	105.35	110	n/a	300	0		0	0	
P1720	Ammonia (unionised) (NH ₃ as N) (free ammonia)	SP	NP	4	4	15	37	130	124.9	130	n/a	n/a	0		0		
15541-45-4	Bromate (BrO ₃ ⁻)			4	0	0.002	<0.002	<0.002	<0.002	<0.002	10	n/a	0		0	0	
16887-00-6	Chloride (Cl ⁻)			4	4	0.15	14	430	371.95	430	250000	250000	0	0	0	0	
16984-48-8	Fluoride (F ⁻)			4	4	50	130	170	165.5	170	1500	1000	0	0	0	0	EQS (inland) dependent on hardness of receiving surface water environment
P1348	Nitrate (NO ₃ ⁻)			4	4	0.05	6.36	16.8	15.63	16.8	50000	n/a	0			0	
P1349	Nitrite (NO ₂ ⁻)			4	4	5	380	1600	1510	1600	500	n/a	3			3	
14808-79-8	Sulfate (SO ₄ ²⁻) (su)			4	4	45	47200	177000	158010	177000	250000	400000	0	0	0	0	
P1134	pH (min.) (su)			4	4	0	6.5	7.6	7.555	7.6	6.5	6	0	0	0	0	
P1134	pH (max.) (su)			4	4	0	6.5	7.6	7.555	7.6	9.5	9	0	0	0	0	
P1287	Electrical conductivity (µS/cm)			1	1	10	710	710	710	710	2500	n/a	0		0	0	
120-12-7	Anthracene	PH	H	4	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.1		0		0	
50-32-8	Benzo(a)pyrene	PH	H	4	0	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.00017	0	4	0	0	Benzo(a)pyrene EQS used as marker substance for the group of benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene & indeno(1,2,3-cd)pyrene
206-44-0	Fluoranthene	P	H	4	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	0.0063	4			4	
91-20-3	Naphthalene	P	NP	4	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2			0	0	
GRP01	PAHs = sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene	P	H	4	0	0.01	<0.01	<0.01	<0.01	<0.01	n/a	2					
P1877	Phenol	SP	NP	4	0	1	<1	<1	<1	<1	n/a	7.7	0		0	0	
P1407	AlI >EC5-EC6			4	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-hexane fall within this fraction
P1408	AlI >EC6-EC8			4	0	1	<1	<1	<1	<1	15000	10	0	0	0	0	n-heptane falls within this fraction
P1409	AlI >EC8-EC10			4	0	1	<1	<1	<1	<1	300	10	0	0	0	0	n-octane and n-nonane fall within this fraction
P1410	AlI >EC10-EC12			4	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1411	AlI >EC12-EC16			4	0	10	<10	<10	<10	<10	300	10	0	0	0	0	
P1938	AlI >EC16-EC35			4	0	10	<10	<10	<10	<10	n/a	10		0		0	
P1415	AlI >EC35-EC44			4	0	10	<10	<10	<10	<10	n/a	10		0		0	
P1441	Aro EC5-EC7			4	0	1	<1	<1	<1	<1	1	10	0	0	0	0	Benzene wholly representative of this fraction
P1355	Aro >EC7-EC8			4	0	1	<1	<1	<1	<1	700	10	0	0	0	0	Toluene wholly representative of this fraction
P1356	Aro >EC8-EC10			4	0	1	<1	<1	<1	<1	300	10	0	0	0	0	Ethylbenzene / xylene / trimethylbenzene representative of this range
P1357	Aro >EC10-EC12			4	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Naphthalene often forms a reasonable percentage of this fraction
P1358	Aro >EC12-EC16			4	0	10	<10	<10	<10	<10	90	10	0	0	0	0	2-methylnaphthalene, acenaphylene, acenaphthene falls within this fraction
P1359	Aro >EC16-EC21			4	0	10	<10	<10	<10	<10	90	10	0	0	0	0	fluorene, anthracene, phenanthrene, pyrene falls within this range
P1360	Aro >EC21-EC35			4	0	10	<10	<10	<10	<10	90	10	0	0	0	0	Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene fall within this fraction

Summary of Remedial Targets Methodology Screening

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				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
P1362	Aro >EC35-EC44			4	0	10	<10	<10	<10	<10	n/a	10						
71-43-2	Benzene	P	H	4	0	1	<1	<1	<1	<1	1	10	0	0	0	0		
108-88-3	Toluene	SP	H	4	0	1	<1	<1	<1	<1	700	74	0	0	0	0		
100-41-4	Ethylbenzene		H	4	0	1	<1	<1	<1	<1	300	20	0	0	0	0	Proposed EQS for Ethylbenzene in Water, R&D Technical Report P2-115/TR4, EA 2001	
95-47-6	o-Xylene		H	4	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
P1374	m,p-Xylene		H	4	0	1	<1	<1	<1	<1	500	30	0	0	0	0	DWS/EQS for total xylene	
1634-04-04	Methyl tertiary butyl ether (MTBE)		NP	4	0	1	<1	<1	<1	<1	15	n/a	0		0		Non health based value - WHO odour threshold	
71-55-6	1,1,1-Trichloroethane		NP	0							n/a	100						
79-00-5	1,1,2-Trichloroethane		NP	0							n/a	400						
96-12-8	1,2-Dibromo-3-chloropropane			0							0.1	n/a						
106-93-4	1,2-Dibromoethane		H	0							0.4	n/a						
95-50-1	1,2-Dichlorobenzene		H	0							1000	20						
107-06-2	1,2-Dichloroethane (EDC)	P	NP	0							3	10						
156-59-2	cis 1,2-Dichloroethene (cis 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
156-60-5	trans 1,2-Dichloroethene (trans 1,2 DCE)		NP	0							50	n/a					DWS is for combined isomers	
78-87-5	1,2-Dichloropropane		H	0							40	n/a						
10061-01-5	cis 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
10061-02-6	trans 1,3-Dichloropropene		H	0							0.1	n/a					DWS is for combined isomers	
106-46-7	1,4-Dichlorobenzene		H	0							300	20						
75-27-4	Bromodichloromethane			0							60	n/a						
75-01-4	Chloroethene (vinyl chloride)		H	0							0.5	n/a						
124-48-1	Dibromochloromethane			0							100	n/a						
25321-22-6	Dichlorobenzenes (1,2-, 1,3- & 1,4-)			0							n/a	20						
75-09-2	Dichloromethane	P	NP	0							20	20						
87-68-3	Hexachlorobutadiene (HCBD)	PH	H	0							0.1	0.6						
100-42-5	Styrene		H	0							20	50						
25322-20-7	Tetrachloroethane (PCA)	SP		0							n/a	140						
127-18-4	Tetrachloroethene (PCE)	OP	NP	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
GRP02	Tetrachloroethene (PCE) and trichloroethene (TCE)			0							10	n/a					UK DWS applies to sum of tetrachloroethene and trichloroethene	
56-23-5	Tetrachloromethane (Carbon Tetrachloride)	OP	H	0							3	12						
75-25-2	Tribromomethane (bromoform)			0							100	n/a						
12002-48-1	Trichlorobenzenes	P	NP	0							n/a	0.4						
79-01-6	Trichloroethene	OP	H	0							10	10					UK DWS applies to sum of tetrachloroethene and trichloroethene	
67-66-3	Trichloromethane (chloroform)	P	H	0							100	2.5						
GRP03	Trihalomethanes, sum of trichloromethane, tribromomethane, dibromochloromethane & bromodichloromethane			0							100	n/a						
88-06-2	2,4,6-Trichlorophenol		H	0							200	n/a						
120-83-2	2,4-Dichlorophenol	SP	H	0							n/a	4.2						
95-57-8	2-Chlorophenol		H	0							n/a	50						
554-00-7	3,4-Dichloroaniline	SP		0							n/a	0.2						
108-43-0	3-Chlorophenol		H	0							n/a	50						
59-50-7	4-Chloro, 3-methylphenol		H	0							n/a	40						
106-48-9	4-Chlorophenol		H	0							n/a	50						
85-68-7	Benzyl butyl phthalate	SP		0							n/a	7.5						
117-81-7	Di(2-ethylhexylphthalate) (DEHP)	PH	NP	0							8	1.3						
84-74-2	Dibutyl phthalate		NP	0							n/a	8						
84-66-2	Diethyl phthalate (DEP)			0							n/a	200						
131-11-3	Dimethyl phthalate (DMP)			0							n/a	800						
117-84-0	Diethyl phthalates			0							n/a	20						
118-74-1	Hexachlorobenzene	PH	H	0							0.1	0.05						
104-40-5	Nonylphenol (4-Nonylphenol)	PH		0							n/a	0.3						
140-66-9	Octylphenol ((4-(1,1', 3,3'-tetramethylbutyl)-phenol))	P		0							n/a	0.1						
608-93-5	Pentachlorobenzene	PH	H	0							n/a	0.007						
123-91-1	1,4-dioxane			0							50	n/a						
79-06-1	Acrylamide		H	0							0.1	n/a						
92-52-4	Biphenyl (cyclochlorocyclohexane)			0							n/a	25						

Summary of Remedial Targets Methodology Screening

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Water body receptor(s): Groundwater and surface water Secondary receptor(s): Data set: Groundwater Client: Portsmouth City Council Site: Dunsbury Park Job no: 19453-GELO Test Certificates(s): 21-10737,21-11194 Dataset Unit 700										PNEC calculated (inland EQS)								
CAS / AGS Number	Chemicals of Potential Concern (concentrations in µg/l)	WFD Designation	Hazardous Substance Status	Summary of Sample Data						Value Being Compared to Target = Maximum Value	Water Quality Target (Exceeded if Red)		No. Samples Exceeding Water Quality Target		No. Samples above LoD Exceeding Water Quality		Notes	
				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS		
32534-81-9	Brominated diphenylethers (Sum congeners 28,47,99,100,153,154)	PH	H	0							n/a	0.14						
85535-84-8	Chloroalkanes C10-C13	PH	H	0							n/a	0.4						
25567-68-4	Chloronitrotoluenes		H	0							n/a	10						
3252-43-5	Dibromoacetone			0							70	n/a						
13425-80-4	Dichloroacetate			0							50	n/a						
3018-12-0	Dichloroacetonitrile			0							20	n/a						
GRP04	Dioxins and dioxin-like compounds	PH		0							n/a	n/a						
3194-55-6	Hexabromocyclododecanes (HBCDD)	PH	H	0							n/a	0.0016						
2163-68-0	Hydroxyatrazine			0							200	n/a						
101043-37-2	Microcystin-LR			0							1	n/a						
62-75-9	N-nitrosodimethylamine			0							0.1	n/a						
1763-23-1	Perfluorooctane sulfonic acid (PFOS) & derivatives	PH	H	0							0.3	0.00065						DWS represents DWI (2009) Tier 2 action value (commence monitoring).
1336-36-3	Polychlorinated Biphenyls (PCB)		H	0							n/a	n/a						
2893-78-9	Sodium dichloroisoxanurate			0							50000	n/a						
126-73-8	Tributyl phosphate		H	0							n/a	50						
3380-34-5	Triclosan	SP		0							n/a	0.1						
7726-95-6	Bromine (Br)			0							n/a	2						
7782-50-5	Chlorine (total free available)	SP	NP	0							200	2						
14866-68-3	Chlorate			0							700	n/a						
14998-27-7	Chlorite			0							700	n/a						
60-00-4	EDTA (edetic acid)			0							600	400						
106-89-8	Epichlorohydrin		H	0							0.1	n/a						
569-64-2	Malachite green		H	0							n/a	0.5						
10599-90-3	Monochloramine			0							3000	n/a						
79-11-8	Monochloroacetate (Chloroacetic Acid)			0							20	n/a						
139-13-9	NTA (nitrilotriacetic acid)			0							200	1000						
76-03-9	Trichloroethanoic acid (trichloroacetate)			0							200	n/a						
7440-61-1	U (dissolved)			0							30	n/a						
36643-28-4	Tributyl tin compounds	PH	H	0							n/a	0.0002						
7783-06-4	Hydrogen Sulphide			0							n/a	0.25						
14797-73-0	Perchlorate			0							70	n/a						
GRP06	Total anions			0							n/a	250000						
93-76-5	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)		H	0							0.1	n/a						
94-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid)	SP		0							0.1	0.3						
94-82-6	2,4-DB (4-(2,4-dichlorophenoxy)butyric acid)			0							0.1	n/a						
71751-41-2	Abamectin			0							0.1	0.01						
74070-46-5	Acinofen	P		0							0.1	0.12						
15972-60-8	Alachlor	P	H	0							0.1	0.3						
116-06-3	Aldicarb		NP	0							0.1	n/a						
309-00-2	Aldrin		H	0							0.03	n/a						
GRP07	Aldrin & dieldrin		H	0							0.03	n/a						
1912-24-9	Atrazine	P	H	0							0.1	0.6						
35575-96-3	Azamethiphos			0							0.1	n/a						
2642-71-9	Azinphos ethyl		H	0							0.1	n/a						
86-50-0	Azinphos-methyl		H	0							0.1	0.01						
25057-89-0	Bentazone		NP	0							0.1	500						
42576-02-3	Bifenox	P	H	0							0.1	0.012						
1689-84-5	Bromoxynil		H	0							0.1	100						
10605-21-7	Carbendazim	SP	H	0							0.1	0.15						
1563-66-2	Carbofuran		NP	0							0.1	n/a						
57-74-9	Chlordane		H	0							0.1	n/a						
470-90-6	Chlorofenvinphos	P	H	0							0.1	0.1						
101-21-3	Chloroproprham		H	0							0.1	10						
2921-88-2	Chloropyrifos	P	H	0							0.1	0.03						
1897-45-6	Chlorothalonil	SP	H	0							0.1	0.035						
15545-48-9	Chlorotoluron		H	0							0.1	2						
GRP08	Cyclodiene pesticides, sum of Aldrin, Dieldrin, Endrin, Isodrin	OP	H	0							0.03	0.01						
56-72-4	Coumaphos		H	0							0.1	0.01						

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				No. of Samples	No. of Samples > LoD	Limit of Detection	Minimum Value	Maximum Value	95-%ile Value		DWS	Inland Waters EQS	DWS	Inland Waters EQS	DWS	Inland Waters EQS	
21725-46-2	Cyanazine		H	0							0.1	n/a					
28159-98-0	Cybutryne	P		0							0.1	0.0025					
68359-37-5	Cyfluthrin			0							0.1	0.001					
52315-07-8	Cypermethrin	P	H	0							0.1	0.00008					
GRP09	DDT total (dichlorodiphenyltrichloroethane)	OP	H														
				0							0.1	0.025					
8065-48-3	Demeton		H	0							0.1	0.5					
333-41-5	Diazinon (sheep dip)	SP	H	0							0.1	0.01					
120-36-5	Dichloroprop		H	0							0.1	n/a					
62-73-7	Dichlorvos	P	H	0							0.1	0.0006					
115-32-2	Dicofol	PH	H	0							0.1	0.0013					
60-57-1	Dieldrin		H	0							0.03	n/a					
35367-38-5	Diffubenzuron		H	0							0.1	0.001					
60-51-5	Dimethoate	SP	H	0							0.1	0.48					
330-54-1	Diuron	P	H	0							0.1	0.2					
117704-25-3	Doramectin			0							n/a	0.001					
115-29-7	Endosulfan	PH	H	0							0.1	0.005					
72-20-8	Endrin		H	0							0.1	n/a					
299-84-3	Fenchlorphos		H	0							0.1	0.03					
122-14-5	Fenitrothion		H	0							0.1	0.01					
93-72-1	Fenoprop ((2,4,5-trichlorophenoxy)propionic acid)		H														
				0							0.1	n/a					
55-38-9	Fenthion		H	0							0.1	n/a					
370-50-3	Flucufuron			0							0.1	1					
50-00-0	Formaldehyde (methanal)		NP	0							0.1	5					
38641-94-0	Glyphosate	SP		0							0.1	196					
76-44-8	Heptachlor		H	0							0.03	2E-07					
GRP10	Heptachlor & Heptachlor epoxide	PH	H														
				0							0.03	2E-07					
1024-57-3	Heptachlor epoxide			0							0.03	2E-07					
608-73-1	Hexachlorocyclohexane (includes lindane)	PH	H	0							0.1	0.02					
1689-83-4	Ioxynil		H	0							0.1	10					
465-73-6	Isodrin		H	0							0.1	n/a					
34123-69-6	Isoproturon	P	NP	0							0.1	0.3					
70288-86-7	Ivermectin			0							n/a	0.0001					
330-55-2	Linuron	SP	H	0							0.1	0.5					
121-75-5	Malathion		H	0							0.1	0.01					
8018-01-07	Mancozeb		NP	0							0.1	2					
12427-38-2	Maneb		NP	0							0.1	3					
94-74-6	MCPA (4-(2-methyl-4-chlorophenoxy acetic acid))			0							0.1	12					EQS inland dependant on pH. Default 12µg/l as conservative approach
93-65-2	Mecoprop	SP	NP	0							0.1	18					
2032-65-7	Methiocarb	SP	NP	0							0.1	0.01					
72-43-5	Methoxychlor			0							0.1	n/a					
51218-45-2	Metolachlor			0							0.1	n/a					
7786-34-7	Mevinphos		H	0							0.1	0.02					
2212-67-1	Molinate			0							0.1	n/a					
1113-02-6	Omethoate		H	0							0.1	0.01					
50-29-3	para-para-DDT	OP	H	0							0.1	0.01					
56-38-2	Parathion		H	0							0.1	n/a					
298-00-0	Parathion-methyl		H	0							0.1	n/a					
GRP11	PCSDs (cyfluthrin, sulcufuron, flucufuron and permethrin)			0							n/a	0.05					
40487-42-1	Pendimethalin	SP	NP	0							0.1	0.3					
87-86-5	Pentachlorophenol	P	H	0							0.1	0.4					
52645-53-1	Permethrin	SP	H	0							0.1	0.001					
GRP12	Pesticides (individual) (other than aldrin, dieldrin, heptachlor & heptachlor epoxide)			0							0.1	n/a					
GRP13	Pesticides (total)			0							0.5	n/a					
23103-98-2	Pirimicarb		NP	0							0.1	1					
29232-93-7	Pirimiphos - methyl		H	0							0.1	0.015					
67747-09-5	Prochloraz		H	0							0.1	4					
31218-83-4	Propetamphos		H	0							0.1	0.03					
23950-58-5	Propyzamide		H	0							0.1	100					
95737-68-1	Pyriproxyfen			0							0.1	n/a					

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124495-18-7	Quinoxifen	PH		0							0.1	0.15					EQS compared to dissolved metals as an initial screen, with no adjustment for bioavailability or ABC.
122-34-9	Simazine	P	H	0							0.1	1					
3567-25-7	Sulcofuron			0							0.1	25					
117-18-0	Tecnazene (total)			0							0.1	1					
886-50-0	Tertbutryn	P	NP	0							0.1	0.065					
5915-41-3	Tertbutylazine		H	0							0.1	n/a					
148-79-8	Thiabendazole		NP	0							0.1	5					
2303-17-5	Triallate		H	0							0.1	0.25					
24017-47-8	Triazaphos		H	0							0.1	0.005					
1582-09-8	Trifluralin	PH	H	0							0.1	0.03					
1262-21-1	Triphenyltin and derivatives		H	0							0.1	0.02					

Assessment of Chemicals of Potential Concern to Human Health

Soil Type: MG							MG	MG	MG	MG	NAT-LC						
All values in mg/kg unless otherwise stated							TP1.01	TP1.04	WS1.01	WS1.02	BH1.01						
Location & Depth							0.2	0.45	0.5	1.5	1						
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC											
Arsenic	1	5	6.9	9.8	0	640	9.8	8.2	6.9	8.4	8.1						
Beryllium	0.06	5	0.22	0.7	0	390	0.22	0.5	0.42	0.7	0.57						
Boron	0.2	5	0.2	1.6	0	190000	0.3	1.6	0.4	0.2	0.2						
Cadmium	0.2	5	0.2	0.8	0	220	0.8	0.8	0.2	0.6	0.4						
Chromium (III)	1	5	7.3	36	0	8400	7.3	36	22	36	26						
Chromium (VI)	1.2	5	1.2	1.2	0	33	1.2	1.2	1.2	1.2	1.2						
Copper	1	5	8.1	150	0	69000	8.1	150	11	88	64						
Lead	1	5	13	90	0	2330	28	52	13	90	24						
Mercury, inorganic	0.3	5	0.3	0.3	0	3600	0.3	0.3	0.3	0.3	0.3						
Nickel	1	5	6.8	34	0	1700	6.8	34	8.5	21	16						
Selenium	1	5	1	1	0	13000	1	1	1	1	1						
Vanadium	1	5	9.4	46	0	9000	9.4	35	32	46	39						
Zinc	1	5	64	320	0	670000	130	320	64	220	150						
Cyanide (free)	1	5	1	1	0	16000	1	1	1	1	1						
Phenol (total)	1	5	1	1	0	760	1	1	1	1	1						
Acenaphthene	0.05	5	0.05	0.05	0	84000	0.05	0.05	0.05	0.05	0.05						
Acenaphthylene	0.05	5	0.05	0.05	0	83000	0.05	0.05	0.05	0.05	0.05						
Anthracene	0.05	5	0.05	0.19	0	520000	0.05	0.05	0.05	0.19	0.05						
Benz(a)anthracene	0.05	5	0.05	0.48	0	86	0.05	0.05	0.05	0.48	0.05						
Benzo(a)pyrene	0.05	5	0.05	0.45	0	14	0.05	0.05	0.05	0.45	0.05						
Benzo(b)fluoranthene	0.05	5	0.05	0.51	0	97	0.05	0.05	0.05	0.51	0.05						
Benzo(ghi)perylene	0.05	5	0.05	0.3	0	630	0.05	0.05	0.05	0.3	0.05						
Benzo(k)fluoranthene	0.05	5	0.05	0.2	0	140	0.05	0.05	0.05	0.2	0.05						
Chrysene	0.05	5	0.05	0.44	0	140	0.05	0.05	0.05	0.44	0.05						
Dibenz(a,h)anthracene	0.05	5	0.05	0.05	0	12	0.05	0.05	0.05	0.05	0.05						
Fluoranthene	0.05	5	0.05	0.91	0	23000	0.05	0.05	0.05	0.91	0.05						
Fluorene	0.05	5	0.05	0.05	0	63000	0.05	0.05	0.05	0.05	0.05						
Indeno(1,2,3,cd)pyrene	0.05	5	0.05	0.24	0	58	0.05	0.05	0.05	0.24	0.05						
Naphthalene	0.05	5	0.05	0.05	0	190	0.05	0.05	0.05	0.05	0.05						
Phenanthrene	0.05	5	0.05	0.74	0	22000	0.05	0.05	0.05	0.74	0.05						
Pyrene	0.05	5	0.05	0.82	0	54000	0.05	0.05	0.05	0.82	0.05						
Asbestos identified	Y/N						N	N	N	N	N						
FOC (dimensionless)	0.004	(mean)					0.0012	0.0044	0.0034	0.0049	0.0061						
SOM (calculated)	0.69%	(mean)					0.21%	0.76%	0.59%	0.84%	1.05%						
pH (su)	10.5	(mean)					9.4	10.2	11.1	12	9.8						

Risk parameter: Human health - commercial (1%SOM)

Data set: Made Ground

Client: Portsmouth City Council

Site: Dunsbury Park Unit 100

Job no.: 19453-GELO.

Lab. report no(s): 21-91291-1, 21-95123-1

Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC).
MG denotes Made Ground LC denotes London Clay Formation
NAT denotes natural ground

Assessment of Chemicals of Potential Concern to Plant Life



Soil Type: MG							MG	MG	MG	MG	NAT-LC						
Location & Depth							TP1.01	TP1.04	WS1.01	WS1.02	BH1.01						
All values in mg/kg unless otherwise stated							0.2	0.45	0.5	1.5	1						
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC											
Arsenic	1	5	6.9	9.8	0	250	9.8	8.2	6.9	8.4	8.1						
Boron	0.2	5	0.2	1.6	0	3	0.3	1.6	0.4	0.2	0.2						
Chromium (III)	1	5	7.3	36	0	400	7.3	36	22	36	26						
Chromium (VI)	1.2	5	1.2	1.2	0	25	1.2	1.2	1.2	1.2	1.2						
Copper	1	5	8.1	150	0	200	8.1	150	11	88	64						
Nickel	1	5	6.8	34	0	110	6.8	34	8.5	21	16						
Zinc	1	5	64	320	1	300	130	320	64	220	150						
	Mean																
pH (su)	10.5						9.4	10.2	11.1	12	9.8						
<div><div><div>Risk parameter: Plant life pH >7</div><div>Data set: Made Ground</div><div>Client: Portsmouth City Council</div><div>Site: Dunsbury Park Unit 100</div><div>Job no.: 19453-GELO.</div><div>Lab. report no(s): 21-91291-1, 21-95123-1</div></div><div><div>Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.</div><div>Values in red are equal to, or greater than, the generic assessment criterion (GAC).</div><div>MG denotes Made Ground</div><div>LC denotes London Clay Formation</div><div>NAT denotes natural ground</div></div></div>																	

Assessment of Chemicals of Potential Concern to Human Health

All values in mg/kg unless otherwise stated							Soil Type	MG	MG	NAT- LC								
Location & Depth							WS1.01	WS1.02	BH1.01									
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.5	1.5	1									
Aliphatics EC5-EC6	0.001	3	0.001	0.001	0	300	0.001	0.001	0.001									
Aliphatics >EC6-EC8	0.001	3	0.001	0.001	0	140	0.001	0.001	0.001									
Aliphatics >EC8-EC10	0.001	3	0.001	0.001	0	78	0.001	0.001	0.001									
Aliphatics >EC10-EC12	1	3	1	1	0	48	1	1	1									
Aliphatics >EC12-EC16	2	3	2	2	0	24	2	2	2									
Aliphatics >EC16-EC35	10	3	10	10	0	1000000	10	10	10									
Aliphatics >EC35-EC44	8.4	3	8.4	8.4	0	1000000	8.4	8.4	8.4									
Aromatics EC5-EC7	0.001	3	0.001	0.001	0	1200	0.001	0.001	0.001									
Aromatics >EC7-EC8	0.001	3	0.001	0.001	0	870	0.001	0.001	0.001									
Aromatics >EC8-EC10	0.001	3	0.001	0.001	0	610	0.001	0.001	0.001									
Aromatics >EC10-EC12	1	3	1	1	0	360	1	1	1									
Aromatics >EC12-EC16	2	3	2	2	0	36000	2	2	2									
Aromatics >EC16-EC21	10	3	10	13	0	28000	10	13	10									
Aromatics >EC21-EC35	10	3	10	27	0	28000	10	27	10									
Aromatics >EC35-EC44	8.4	3	8.4	8.4	0	28000	8.4	8.4	8.4									
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION											
Aliphatics EC5-EC6							0.000	0.000	0.000									
Aliphatics >EC6-EC8							0.000	0.000	0.000									
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000									
	Aliphatics >EC10-EC12						0.021	0.021	0.021									
	Aliphatics >EC12-EC16						0.083	0.083	0.083									
	Aliphatics >EC16-EC35						0.000	0.000	0.000									
Aliphatics >EC35-EC44							0.000	0.000	0.000									
Aromatics EC5-EC7							0.000	0.000	0.000									
Aromatics >EC7-EC8							0.000	0.000	0.000									
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000									
	Aromatics >EC10-EC12						0.003	0.003	0.003									
	Aromatics >EC12-EC16						0.000	0.000	0.000									
	Aromatics >EC16-EC21						0.000	0.000	0.000									
Considered additive	Aromatics >EC21-EC35						0.000	0.001	0.000									
	Aromatics >EC35-EC44						0.000	0.000	0.000									
Hazard Index for ali>C8-C16							0.104	0.104	0.104									
Hazard Index for aro>C8-C16							0.003	0.003	0.003									
Hazard Index for aro>C16-C35							0.001	0.001	0.001									
Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																		
Risk parameter: Human health - commercial (1%SOM)							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.											
Data set: Made Ground							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).											
Client: Portsmouth City Council							MG denotes Made Ground											
Site: Dunsbury Park Unit 100							NAT denotes natural ground											
Job no.: 19453-GELO																		
Lab. report no(s).: 21-91291-1, 21-95123-1																		

Assessment of Chemicals of Potential Concern to Human Health



Chemical of Potential Concern	Soil Type						MG	MG	MG	MG	MG	MG	MG	NAT - BSM				
	Location & Depth						TP4.03	TP4.06	WS4.01	WS4.03	WS4.06	BH4.01	BH4.02	WS4.04				
	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.05	0.3	0.2	0.4	0.5	0.5	0.5	0.9				
All values in mg/kg unless otherwise stated																		
Arsenic	1	8	6	11	0	640	7.8	8.6	11	7.8	6	6.9	6.5	7.4				
Beryllium	0.06	8	0.42	0.76	0	390	0.42	0.45	0.73	0.53	0.42	0.76	0.66	0.49				
Boron	0.2	8	0.2	0.6	0	190000	0.4	0.6	0.5	0.2	0.2	0.2	0.4	0.2				
Cadmium	0.2	8	0.2	0.2	0	220	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
Chromium (III)	1	8	20	32	0	8400	20	21	27	26	23	25	32	23				
Chromium (VI)	1.2	8	1.2	1.2	0	33	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2				
Copper	1	8	5.5	13	0	69000	5.6	8.7	9.6	5.5	6.6	8.7	13	6.2				
Lead	1	8	6.3	18	0	2330	15	18	8.6	6.3	7.2	8.1	6.3	6.7				
Mercury, inorganic	0.3	8	0.3	0.3	0	3600	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
Nickel	1	8	8.3	21	0	1700	8.8	9.3	21	11	8.3	16	12	9.4				
Selenium	1	8	1	1	0	13000	1	1	1	1	1	1	1	1				
Vanadium	1	8	30	39	0	9000	30	32	39	37	34	31	37	33				
Zinc	1	8	34	70	0	670000	50	70	59	37	41	49	56	34				
Cyanide (free)	1	8	1	1	0	16000	1	1	1	1	1	1	1	1				
Phenol (total)	1	8	1	1	0	760	1	1	1	1	1	1	1	1				
Acenaphthene	0.05	8	0.05	0.05	0	84000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Acenaphthylene	0.05	8	0.05	0.05	0	83000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Anthracene	0.05	8	0.05	0.05	0	520000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Benz(a)anthracene	0.05	8	0.05	0.05	0	86	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Benzo(a)pyrene	0.05	8	0.05	0.05	0	14	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Benzo(b)fluoranthene	0.05	8	0.05	0.05	0	97	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Benzo(ghi)perylene	0.05	8	0.05	0.05	0	630	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Benzo(k)fluoranthene	0.05	8	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Chrysene	0.05	8	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Dibenz(a,h)anthracene	0.05	8	0.05	0.05	0	12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Fluoranthene	0.05	8	0.05	0.05	0	23000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Fluorene	0.05	8	0.05	0.05	0	63000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Indeno(1,2,3,cd)pyrene	0.05	8	0.05	0.05	0	58	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Naphthalene	0.05	8	0.05	0.05	0	190	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Phenanthrene	0.05	8	0.05	0.05	0	22000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Pyrene	0.05	8	0.05	0.05	0	54000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05				
Asbestos identified	Y/N						N	N	N	N	N	N	N	N				
FOC (dimensionless)	0.00295	(mean)					0.0033	0.0029	0.0055	0.0015	0.0027	0.0028	0.0031	0.0018				
SOM (calculated)	0.51%	(mean)					0.57%	0.50%	0.95%	0.26%	0.47%	0.48%	0.53%	0.31%				
pH (su)	9.9	(mean)					9.9	9.5	10.1	10.3	12.2	6.5	11.1	9.8				
<p>Risk parameter: Human health - commercial (1%SOM)</p> <p>Data set: Made Ground / Natural</p> <p>Client: Portsmouth City Council</p> <p>Site: Dunsbury Park Unit 400</p> <p>Job no.: 19453-GELO</p> <p>Lab. report no(s): 21-91291-1, 21-95123-1</p> <p>Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground</p>																		

Assessment of Chemicals of Potential Concern to Plant Life



Soil Type: MG							MG	MG	MG	MG	MG	MG	MG	NAT - BSM				
All values in mg/kg unless otherwise stated							TP4.03	TP4.06	WS4.01	WS4.03	WS4.06	BH4.01	BH4.02	WS4.04				
Location & Depth							0.05	0.3	0.2	0.4	0.5	0.5	0.5	0.9				
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC												
Arsenic	1	8	6	11	0	250	7.8	8.6	11	7.8	6	6.9	6.5	7.4				
Boron	0.2	8	0.2	0.6	0	3	0.4	0.6	0.5	0.2	0.2	0.2	0.4	0.2				
Chromium (III)	1	8	20	32	0	400	20	21	27	26	23	25	32	23				
Chromium (VI)	1.2	8	1.2	1.2	0	25	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2				
Copper	1	8	5.5	13	0	200	5.6	8.7	9.6	5.5	6.6	8.7	13	6.2				
Nickel	1	8	8.3	21	0	110	8.8	9.3	21	11	8.3	16	12	9.4				
Zinc	1	8	34	70	0	300	50	70	59	37	41	49	56	34				
	Mean																	
pH (su)	9.9						9.9	9.5	10.1	10.3	12.2	6.5	11.1	9.8				
<div><div><div>Risk parameter: Plant life pH >7</div><div>Data set: Made Ground / Natural</div><div>Client: Portsmouth City Council</div><div>Site: Dunsbury Park Unit 400</div><div>Job no.: 19453-GELO</div><div>Lab. report no(s): 21-91291-1, 21-95123-1</div></div><div><div>Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.</div><div>Values in red are equal to, or greater than, the generic assessment criterion (GAC).</div><div>MG denotes Made Ground</div><div>NAT denotes natural ground</div></div></div>																		

Assessment of Chemicals of Potential Concern to Human Health

Soil Type							MG	MG	MG	MG	MG	MG						
All values in mg/kg unless otherwise stated							TP4.03	TP4.06	WS4.03	WS4.06	BH4.01	BH4.02						
Location & Depth							0.05	0.3	0.4	0.5	0.5	0.5						
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC												
Aliphatics EC5-EC6	0.001	6	0.001	0.001	0	300	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC6-EC8	0.001	6	0.001	0.001	0	140	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC8-EC10	0.001	6	0.001	0.001	0	78	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC10-EC12	1	6	1	1	0	48	1	1	1	1	1	1						
Aliphatics >EC12-EC16	2	6	2	2	0	24	2	2	2	2	2	2						
Aliphatics >EC16-EC35	10	6	10	10	0	1000000	10	10	10	10	10	10						
Aliphatics >EC35-EC44	8.4	6	8.4	8.4	0	1000000	8.4	8.4	8.4	8.4	8.4	8.4						
Aromatics EC5-EC7	0.001	6	0.001	0.001	0	1200	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC7-EC8	0.001	6	0.001	0.001	0	870	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC8-EC10	0.001	6	0.001	0.001	0	610	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC10-EC12	1	6	1	1	0	360	1	1	1	1	1	1						
Aromatics >EC12-EC16	2	6	2	2	0	36000	2	2	2	2	2	2						
Aromatics >EC16-EC21	10	6	10	10	0	28000	10	10	10	10	10	10						
Aromatics >EC21-EC35	10	6	10	10	0	28000	10	10	10	10	10	10						
Aromatics >EC35-EC44	8.4	6	8.4	8.4	0	28000	8.4	8.4	8.4	8.4	8.4	8.4						
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION											
Aliphatics EC5-EC6							0.000	0.000	0.000	0.000	0.000	0.000						
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000						
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000						
	Aliphatics >EC10-EC12						0.021	0.021	0.021	0.021	0.021	0.021						
	Aliphatics >EC12-EC16						0.083	0.083	0.083	0.083	0.083	0.083						
	Aliphatics >EC16-EC35						0.000	0.000	0.000	0.000	0.000	0.000						
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000						
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000						
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000						
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000						
	Aromatics >EC10-EC12						0.003	0.003	0.003	0.003	0.003	0.003						
	Aromatics >EC12-EC16						0.000	0.000	0.000	0.000	0.000	0.000						
Considered additive	Aromatics >EC16-EC21						0.000	0.000	0.000	0.000	0.000	0.000						
	Aromatics >EC21-EC35						0.000	0.000	0.000	0.000	0.000	0.000						
Aromatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000						
Hazard Index for ali>C8-C16							0.104	0.104	0.104	0.104	0.104	0.104						
Hazard Index for aro>C8-C16							0.003	0.003	0.003	0.003	0.003	0.003						
Hazard Index for aro>C16-C35							0.001	0.001	0.001	0.001	0.001	0.001						
Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																		
Risk parameter: Human health - commercial (1%SOM)							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.											
Data set: Made Ground							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).											
Client: Portsmouth City Council							MG denotes Made Ground											
Site: Dunsbury Park Unit 400							NAT denotes natural ground											
Job no.: 19453-GELO																		
Lab. report no(s).: 21-91291-1, 21-95123-1																		

Assessment of Chemicals of Potential Concern to Human Health



Soil Type							TS	TS	MG	HEAD	HEAD	HEAD	BSM	BSM	BSM	BSM		
Location & Depth							TP6.01	WS6.03	TP6.09	TP6.04	TP6.06	TP6.08	WS6.06	WS6.07	WS6.03	BH6.01		
All values in mg/kg unless otherwise stated							0.2	0.2	0.5	0.5	0.5	0.4	0.5	0.6	0.6	0.4		
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC												
Arsenic	1	10	5.1	11	0	640	5.1	6.5	9.2	7.3	10	5.8	7.1	8.8	11	6		
Beryllium	0.06	10	0.26	0.68	0	390	0.26	0.33	0.63	0.28	0.38	0.28	0.51	0.48	0.68	0.31		
Boron	0.2	10	0.2	0.6	0	190000	0.4	0.5	0.2	0.4	0.5	0.2	0.2	0.2	0.6	0.2		
Cadmium	0.2	10	0.2	0.2	0	220	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
Chromium (III)	1	10	15	48	0	8400	15	20	48	19	22	16	33	23	34	21		
Chromium (VI)	1.2	10	1.2	1.2	0	33	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
Copper	1	10	4.2	13	0	69000	8.1	11	7.6	7.1	8.5	4.2	13	4.6	9.8	5.4		
Lead	1	10	7	18	0	2330	18	17	9.9	9.1	13	7	10	7.3	11	9.2		
Mercury, inorganic	0.3	10	0.3	0.3	0	3600	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
Nickel	1	10	5.5	19	0	1700	6.4	7.6	19	5.5	7.7	6.4	13	12	15	5.6		
Selenium	1	10	1	1	0	13000	1	1	1	1	1	1	1	1	1	1		
Vanadium	1	10	22	52	0	9000	22	31	52	32	36	26	41	33	49	33		
Zinc	1	10	26	44	0	670000	33	39	40	26	35	28	33	33	44	27		
Cyanide (free)	1	10	1	1	0	16000	1	1	1	1	1	1	1	1	1	1		
Phenol (total)	1	10	1	1	0	1500	1	1	1	1	1	1	1	1	1	1		
Acenaphthene	0.05	10	0.05	0.05	0	97000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Acenaphthylene	0.05	10	0.05	0.05	0	97000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Anthracene	0.05	10	0.05	0.05	0	540000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Benz(a)anthracene	0.05	10	0.05	0.05	0	91	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Benzo(a)pyrene	0.05	10	0.05	0.05	0	14	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Benzo(b)fluoranthene	0.05	10	0.05	0.05	0	98	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Benzo(ghi)perylene	0.05	10	0.05	0.05	0	640	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Benzo(k)fluoranthene	0.05	10	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Chrysene	0.05	10	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Dibenz(a,h)anthracene	0.05	10	0.05	0.05	0	12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Fluoranthene	0.05	10	0.05	0.05	0	23000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Fluorene	0.05	10	0.05	0.05	0	68000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Indeno(1,2,3,cd)pyrene	0.05	10	0.05	0.05	0	59	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Naphthalene	0.05	10	0.05	0.05	0	460	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Phenanthrene	0.05	10	0.05	0.05	0	22000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Pyrene	0.05	10	0.05	0.05	0	54000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Asbestos identified	Y/N						N	N	N	N	N	N	N	N	N	N		
FOC (dimensionless)	0.00506	(mean)					0.0099	0.012	0.0012	0.0032	0.0048	0.0052	0.0014	0.0031	0.0028	0.007		
SOM (calculated)	0.87%	(mean)					1.71%	2.07%	0.21%	0.55%	0.83%	0.90%	0.24%	0.53%	0.48%	1.21%		
pH (su)	7.3	(mean)					7.1	6.7	7.4	7.1	7.7	6.7	7.6	7.3	7.8	7.7		
Risk parameter: Human health - commercial (2.5%SOM)							Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC).											
Data set: Made Ground and Natural							MG denotes Made Ground TS denotes Topsoil											
Client: Portsmouth City Council							NAT denotes natural ground HEAD denotes Head Deposits											
Site: Dunsbury Park Unit 600-601							BSM denotes Bognor Sand Member											
Job no.: 19453-GELO																		
Lab. report no(s): 21-90851-1, 21-91147-1, 21-95123-1																		

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Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC).
MG denotes Made Ground TS denotes Topsoil
NAT denotes natural ground HEAD denotes Head Deposits
BSM denotes Bognor Sand Member

Assessment of Chemicals of Potential Concern to Human Health

Soil Type							TS	HEAD	MG	BSM	BSM	BSM	BSM							
All values in mg/kg unless otherwise stated Location & Depth							TP6.01	TP6.04	TP6.09	WS6.06	WS6.07	WS6.03	BH6.01							
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.2	0.5	0.5	0.5	0.6	0.6	0.4							
Aliphatics EC5-EC6	0.001	7	0.001	0.001	0	560	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aliphatics >EC6-EC8	0.001	7	0.001	0.001	0	320	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aliphatics >EC8-EC10	0.001	7	0.001	0.001	0	190	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aliphatics >EC10-EC12	1	7	1	1	0	120	1	1	1	1	1	1	1							
Aliphatics >EC12-EC16	2	7	2	2	0	59	2	2	2	2	2	2	2							
Aliphatics >EC16-EC35	10	7	10	10	0	1000000	10	10	10	10	10	10	10							
Aliphatics >EC35-EC44	8.4	7	8.4	8.4	0	1000000	8.4	8.4	8.4	8.4	8.4	8.4	8.4							
Aromatics EC5-EC7	0.001	7	0.001	0.001	0	2300	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aromatics >EC7-EC8	0.001	7	0.001	0.001	0	1900	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aromatics >EC8-EC10	0.001	7	0.001	0.001	0	1500	0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Aromatics >EC10-EC12	1	7	1	1	0	900	1	1	1	1	1	1	1							
Aromatics >EC12-EC16	2	7	2	2	0	37000	2	2	2	2	2	2	2							
Aromatics >EC16-EC21	10	7	10	10	0	28000	10	10	10	10	10	10	10							
Aromatics >EC21-EC35	10	7	10	11	0	28000	10	10	10	11	10	10	10							
Aromatics >EC35-EC44	8.4	7	8.4	8.4	0	28000	8.4	8.4	8.4	8.4	8.4	8.4	8.4							
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION													
Aliphatics EC5-EC6							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
	Aliphatics >EC10-EC12						0.008	0.008	0.008	0.008	0.008	0.008	0.008							
	Aliphatics >EC12-EC16						0.034	0.034	0.034	0.034	0.034	0.034	0.034							
	Aliphatics >EC16-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
	Aromatics >EC10-EC12						0.001	0.001	0.001	0.001	0.001	0.001	0.001							
	Aromatics >EC12-EC16						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Considered additive	Aromatics >EC16-EC21						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
	Aromatics >EC21-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Aromatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000							
Hazard Index for ali>C8-C16							0.042	0.042	0.042	0.042	0.042	0.042	0.042							
Hazard Index for aro>C8-C16							0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Hazard Index for aro>C16-C35							0.001	0.001	0.001	0.001	0.001	0.001	0.001							
Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																				
Risk parameter: Human health - commercial (2.5%SOM)										Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.										
Data set: Natural										Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).										
Client: Portsmouth City Council										MG denotes Made Ground										
Site: Dunsbury Park Unit 600-601										NAT denotes natural ground										
Job no.: 19453-GELO																				
Lab. report no(s).: 21-90851-1, 21-91147-1, 21-95123-1																				

Assessment of Chemicals of Potential Concern to Human Health

Soil Type							MG	MG	MG	MG	TS	HEAD	HEAD	BSM	BSM			
Location & Depth							TP7.09	TP7.07	HP7.01	HP7.01	WS7.04	WS7.02	WS7.03	TP7.03	TP7.08			
All values in mg/kg unless otherwise stated							1	1	0.2	0.8	0.2	0.7	0.4	0.5	0.6			
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC												
Arsenic	1	9	6.8	12	0	640	6.8	9.2	8.6	12	6.9	9.6	6.8	9.6	9.3			
Beryllium	0.06	9	0.26	0.76	0	390	0.34	0.43	0.6	0.76	0.29	0.55	0.26	0.58	0.44			
Boron	0.2	9	0.2	3	0	190000	0.2	0.6	0.6	3	0.2	0.2	0.2	0.5	0.2			
Cadmium	0.2	9	0.2	1.7	0	220	0.2	0.7	0.7	1.7	0.2	0.2	0.2	0.2	0.2			
Chromium (III)	1	9	13	39	0	8400	18	24	31	39	15	29	13	26	24			
Chromium (VI)	1.2	9	1.2	1.2	0	33	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2			
Copper	1	9	4.8	230	0	69000	4.8	92	130	230	9.6	7.5	9.9	23	6.2			
Lead	1	9	7	78	0	2330	7	33	34	78	17	9.2	15	13	7.2			
Mercury, inorganic	0.3	9	0.3	0.3	0	3600	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3			
Nickel	1	9	4.8	42	0	1700	7.6	13	19	42	5.9	14	4.8	15	9.6			
Selenium	1	9	1	1	0	13000	1	1	1	1	1	1	1	1	1			
Vanadium	1	9	24	48	0	9000	28	34	39	48	27	41	24	37	38			
Zinc	1	9	24	870	0	670000	24	240	360	870	36	43	30	83	35			
Cyanide (free)	1	9	1	1	0	16000	1	1	1	1	1	1	1	1	1			
Phenol (total)	1	9	1	1	0	1500	1	1	1	1	1	1	1	1	1			
Acenaphthene	0.05	9	0.05	0.05	0	97000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Acenaphthylene	0.05	9	0.05	0.05	0	97000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Anthracene	0.05	9	0.05	0.05	0	540000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Benz(a)anthracene	0.05	9	0.05	0.05	0	91	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Benzo(a)pyrene	0.05	9	0.05	0.05	0	14	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Benzo(b)fluoranthene	0.05	9	0.05	0.05	0	98	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Benzo(ghi)perylene	0.05	9	0.05	0.05	0	640	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Benzo(k)fluoranthene	0.05	9	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Chrysene	0.05	9	0.05	0.05	0	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Dibenz(a,h)anthracene	0.05	9	0.05	0.05	0	12	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Fluoranthene	0.05	9	0.05	0.05	0	23000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Fluorene	0.05	9	0.05	0.05	0	68000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Indeno(1,2,3,cd)pyrene	0.05	9	0.05	0.05	0	59	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Naphthalene	0.05	9	0.05	0.05	0	460	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Phenanthrene	0.05	9	0.05	0.05	0	22000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Pyrene	0.05	9	0.05	0.05	0	54000	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
Asbestos identified	Y/N						N	N	N	N	N	N	N	N	N			
FOC (dimensionless)	0.006033	(mean)					0.0017	0.0068	0.004	0.006	0.013	0.003	0.014	0.0026	0.0032			
SOM (calculated)	1.04%	(mean)					0.29%	1.17%	0.69%	1.03%	2.24%	0.52%	2.41%	0.45%	0.55%			
pH (su)	7.3	(mean)					7.1	8.8	8.4	8.9	5.6	6.8	5.7	6.8	7.4			
Risk parameter: Human health - commercial (2.5%SOM)							Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC).											
Data set: Made Ground and Natural							MG denotes Made Ground TS denotes Topsoil											
Client: Portsmouth City Council							NAT denotes natural ground HEAD denotes Head Deposits											
Site: Dunsbury Park Unit 700							BSM denotes Bognor Sand Member											
Job no.: 19453-GELO																		
Lab. report no(s): 21-91291-1, 21-98932-1																		

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Risk parameter: **Plant life pH >7**
Data set: Made Ground and Natural
Client: Portsmouth City Council
Site: Dunsbury Park Unit 700
Job no.: 19453-GELO
Report no(s): 21-91291-1, 21-98932-1

Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC).
MG denotes Made Ground TS denotes Topsoil
NAT denotes natural ground HEAD denotes Head Deposits
BSM denotes Bognor Sand Member

Assessment of Chemicals of Potential Concern to Human Health

Soil Type							TS	MG	MG	MG	MG	HEAD	BSM						
All values in mg/kg unless otherwise stated Location & Depth							WS7.04	TP7.07	TP7.09	HP7.01	HP7.01	WS7.02	TP7.03						
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.2	1	1	0.2	0.8	0.7	0.5						
Aliphatics EC5-EC6	0.001	7	0.001	0.001	0	560	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC6-EC8	0.001	7	0.001	0.001	0	320	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC8-EC10	0.001	7	0.001	0.001	0	190	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aliphatics >EC10-EC12	1	7	1	1	0	120	1	1	1	1	1	1	1						
Aliphatics >EC12-EC16	2	7	2	2	0	59	2	2	2	2	2	2	2						
Aliphatics >EC16-EC35	10	7	10	10	0	1000000	10	10	10	10	10	10	10						
Aliphatics >EC35-EC44	8.4	7	8.4	8.4	0	1000000	8.4	8.4	8.4	8.4	8.4	8.4	8.4						
Aromatics EC5-EC7	0.001	7	0.001	0.001	0	2300	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC7-EC8	0.001	7	0.001	0.001	0	1900	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC8-EC10	0.001	7	0.001	0.001	0	1500	0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Aromatics >EC10-EC12	1	7	1	1	0	900	1	1	1	1	1	1	1						
Aromatics >EC12-EC16	2	7	2	2	0	37000	2	2	2	2	2	2	2						
Aromatics >EC16-EC21	10	7	10	10	0	28000	10	10	10	10	10	10	10						
Aromatics >EC21-EC35	10	7	10	10	0	28000	10	10	10	10	10	10	10						
Aromatics >EC35-EC44	8.4	7	8.4	8.4	0	28000	8.4	8.4	8.4	8.4	8.4	8.4	8.4						
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION												
Aliphatics EC5-EC6							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
	Aliphatics >EC10-EC12						0.008	0.008	0.008	0.008	0.008	0.008	0.008						
	Aliphatics >EC12-EC16						0.034	0.034	0.034	0.034	0.034	0.034	0.034						
	Aliphatics >EC16-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000						
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
	Aromatics >EC10-EC12						0.001	0.001	0.001	0.001	0.001	0.001	0.001						
	Aromatics >EC12-EC16						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
Considered additive	Aromatics >EC16-EC21						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
	Aromatics >EC21-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000						
Aromatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000						
Hazard Index for ali>C8-C16							0.042	0.042	0.042	0.042	0.042	0.042	0.042						
Hazard Index for aro>C8-C16							0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Hazard Index for aro>C16-C35							0.001	0.001	0.001	0.001	0.001	0.001	0.001						
Risk parameter: Human health - commercial (2.5%SOM)							Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.												
Data set: Made Ground and Natural							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.												
Client: Portsmouth City Council							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).												
Site: Dunsbury Park Unit 700							MG denotes Made Ground												
Job no.: 19453-GELO							NAT denotes natural ground												
Lab. report no(s): 21-91291-1, 21-98932-1																			